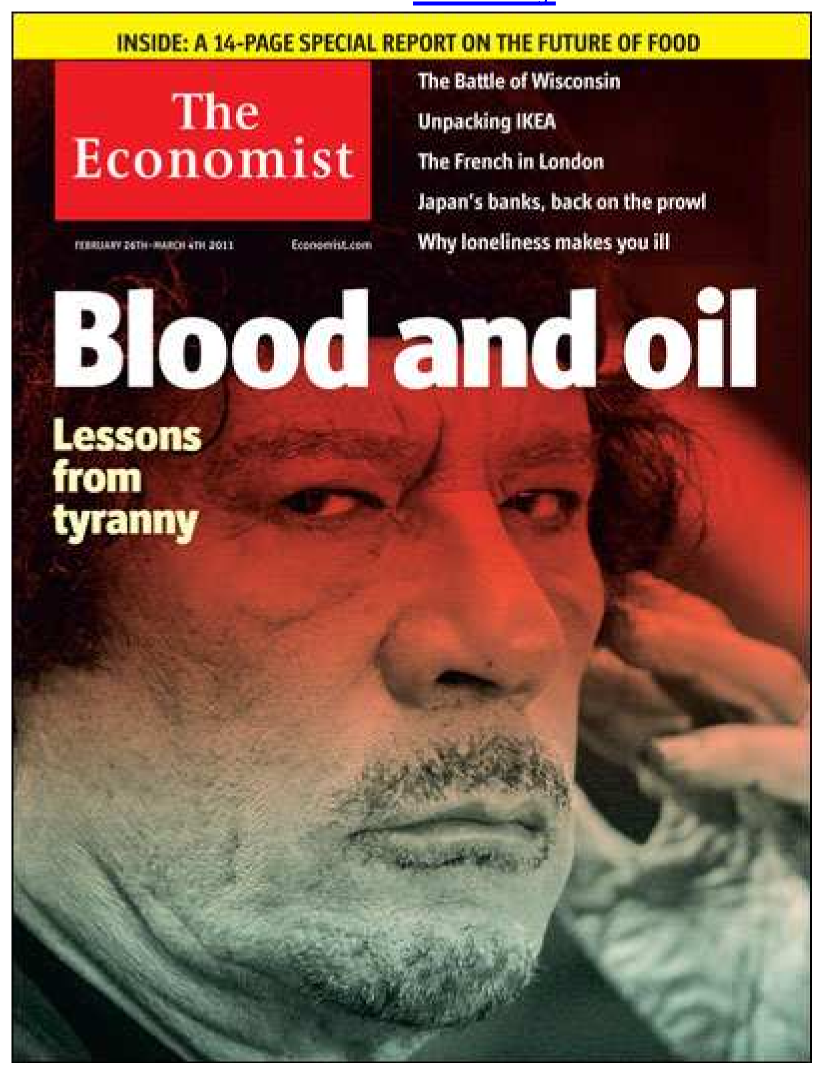
The Economist

February , 2011



Politics this week

Feb 24th 2011 | from the print edition



Muammar Qaddafi, the ruler of **Libya**, deployed tanks and fighter jets in an attempt to put down a popular uprising, ignited by street protests, that started in the east of the country and spread to Tripoli, the capital. Rebels held large swathes of territory after taking heavy losses estimated to be at least 1,000 killed and many more injured. The UN Security Council demanded an end to the violence. See article

The open defiance of protesters against authoritarian government in the Middle East spread to **Morocco** and **Iraqi** Kurdistan. See article In **Bahrain** the royal family ordered harsh force to be used against the demonstrators, killing several. But after heavy criticism it relented and vowed to work towards political reform. See article

In **Egypt** the chief prosecutor called for the freezing of assets belonging to Hosni Mubarak, the deposed president. See article

Two **Iranian** warships passed through Egypt's Suez Canal for the first time in more than three decades, en route to Syria. Israel described the ships' presence off the Israeli coast as a "provocation".

President Yoweri Museveni of **Uganda** won re-election with an increased majority. The election was said to be fairer than the one five years ago. See article

In the Democratic Republic of **Congo** a court sentenced Kibibi Mutware, a militia leader, to 20 years in prison for mass rape. Forty-nine women testified against him in the first case of its kind.

The presidential stamp

Prosecutors in **Brazil** started an investigation into Luiz Inacio Lula da Silva, whose presidential term ended last year, for spending $3.5m of public funds in 2004 to send letters promoting low-interest loans. The prosecutors say the letters had no legitimate purpose and only served to benefit a bank that was subsequently linked to a corruption scandal.

Cuba released seven more political prisoners, bringing the total to 70 freed since last year. One of the released prisoners is refusing, unlike all the others, to go into exile.

State of the unions



Tens of thousands of **union sympathisers** from across America converged in Madison, Wisconsin's capital, to protest against a plan by Scott Walker, the new Republican governor, to end collective-bargaining in the public sector. They were met by thousands of tea-party activists. The legislature was unable to form a quorum to debate the issue after Democratic state senators absconded to Illinois. Other states with big deficits are also thinking about curbing worker benefits. Union protests spread to Ohio and Indiana. See article

In a surprise turnaround, the Justice Department said it would no longer argue in favour of the Defence of Marriage Act, a law signed by Bill Clinton in 1996 that bars the federal government from recognising **same-sex marriage**, and that it now

considers the act to be unconstitutional. The decision could open the courts to thousands of challenges from gay couples from the handful of states where gay marriage is legal.

Rahm Emanuel cruised to victory in the Chicago mayor's race, picking up 55% of the vote and thereby avoiding a run-off. The second-placed candidate came in some 30 percentage points behind. An immediate problem facing Mr Emanuel when he enters office in May will be the city's budget deficit. See article

Murky Merkel

Germany's ruling Christian Democratic Union suffered a heavy defeat in a state election in Hamburg. In a bad week for Angela Merkel her defence minister, Karl-Theodor zu Guttenberg, was embroiled in a plagiarism scandal that forced him to relinquish his doctorate. And after eight weeks of tortuous negotiations, her government agreed on a costly compromise with the opposition over reforms to unemployment benefits and the minimum wage. See article

Thousands of **Basques** marched in Bilbao in support of allowing the registration of Sortu, a new separatist party. Its predecessor, Batasuna, was outlawed in 2003 for having links to ETA, an armed terror group. Prosecutors want Sortu to be banned, too. See article

A new government was formed in **Kosovo**. Parliament elected Hashim Thaci to serve a second term as prime minister, despite allegations linking him to a murder and organ-harvesting scandal after the Kosovo war in 1999.

A fatal shake



Christchurch, **New Zealand's** second-largest city, was devastated by an earthquake and several aftershocks. Scores of people died and hundreds were missing in New Zealand's worst natural disaster for 80 years. Damages were estimated at $6 billion. John Key, the prime minister, said it could turn out to be the country's "darkest day". See article

An online campaign urged people in Beijing and a dozen other cities in **China** to heed the example of the "jasmine revolution" sweeping the Arab world and to converge in public places to call for political and economic rights. Very few civilians turned up, but police were out in droves and censors banned the word "jasmine" from China's microblogs. Activists reported that a number of their leaders were arrested ahead of the protests.

Afghanistan suffered several suicide-bombings. The most lethal attack killed at least 38 people queuing at a bank in the eastern city of Jalalabad. Others killed dozens in four other cities. Meanwhile, it was alleged that a NATO-led operation had resulted in the deaths of 64 civilians in Kunar province. An outgoing UN official said that security is "at its lowest point" in Afghanistan since 2001. See article

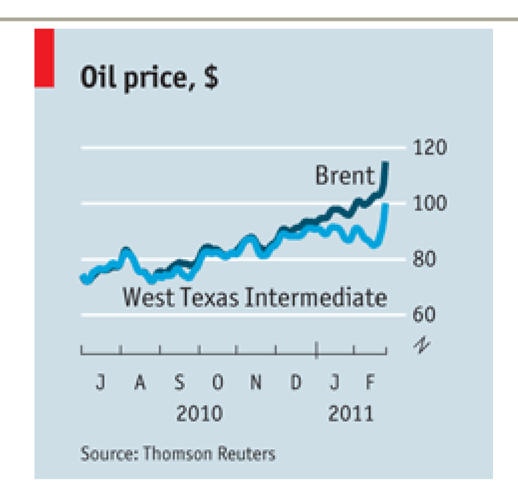
The governments of **Thailand** and **Cambodia** agreed to let the Association of South-East Asian Nations send military observers to a disputed area along their border. A recent exchange of fire around the Preah Vihear temple killed at least eight people. The observers will all be Indonesians.

Nearly 2.7m civil servants set out around **India** to conduct the world's second-largest census. For the first time the census-takers will ask which of three sexes-male, female or "other"-the subject belongs to, and record how many Indians have electricity, toilets and permanent dwellings. Caste will also be tallied, in a separate survey. See article

Shanghai announced a one-dog policy, based along the lines of China's one-child law. Owners of the city's many unlicensed pooches insisted the local authorities were hounding them.

Business this week

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The political strife in Libya caused **oil prices** to soar. Brent crude traded at well above $115 a barrel in London and West Texas Intermediate at around $100 in New York. Investors turned to precious metals as a haven, helping to push up the price of **silver** to a 31-year high. See article

In Cote d'Ivoire the internationally recognised winner of November's disputed presidential election extended a ban he has imposed on **cocoa** exports from his country, in an effort to make the incumbent president stand aside. Cocoa stocks are piling up in ports, increasing the chance of the beans decaying. There was more violence in the west African country this week.

Apple's board of directors was challenged by investors at the annual general meeting to reveal the succession plan it has drawn up to replace Steve Jobs should the chief executive not return from medical leave. In a vote shareholders backed the board, which argues that disclosing the plan now would only help competitors. Mr Jobs did not attend the meeting.

The bottom dollar

Wal-Mart reported another poor quarter in America, with revenue dipping again from stores that have been open for at least a year. Sales from the retailer's international business, which accounts for around a quarter of its profit, boosted its overall results. Wal-Mart is facing stout competition at home from the spread of discount chains that offer even-cheaper goods to consumers who feel particularly cash-strapped.

Making good on its recent undertaking to conduct more of its business in emerging markets, **BP** bought a stake in the maritime natural-gas assets owned by India's **Reliance Industries**. Potentially worth around $9 billion, the deal is one of the biggest-ever foreign investments in India.

BHP Billiton boosted its energy portfolio by agreeing to pay $4.8 billion for shale-gas assets in Arkansas. The mining company earns a fifth of its profit from oil and gas resources.

Trade secrets

Huawei, China's biggest maker of telecoms equipment, reversed course and accepted the recommendation of the Committee on Foreign Investment in the United States that it revoke its acquisition of assets owned by 3Leaf, an American technology company. Huawei had already bought the assets, but officials at the Pentagon asked the CFIUS, which considers the national-security implications of takeovers, for its opinion. If Huawei had persisted, the White House would have had to rule on the deal.

Alibaba's chief executive and chief operating officer both resigned after taking responsibility for a scandal at the Chinese e-commerce website, in which some 2,300 online dealers conned their customers. The sellers had used fake documents to set up their businesses on the site, allegedly with the help of a small number of Alibaba staff. See article

HP's share price fell sharply after it delivered a weaker-than-expected set of quarterly earnings that showed sales declining in the company's IT services and personal-computing businesses. HP shaved $1.5 billion from its revenue target for the year.

A judge in Manhattan ruled that the sale of **Lehman Brothers'** American business to Barclays in 2008, shortly after the investment bank's spectacular collapse, was in order, throwing out a claim from Lehman creditors that they were entitled to an $11 billion "windfall" from the deal. It was widely expected that the creditors would lose their case.

Meanwhile, there was another political fuss in Britain over the activities of big banks when **Barclays** was forced to reveal that it had paid just pound113m ($176m) in British corporation tax in 2009, equivalent to 2.5% of its global pre-tax profit that year. Barclays coughed up more than pound2 billion in other British taxes in 2009, mostly in payroll-tax contributions, but, as with other banks, was able to reduce its corporate-tax liability in Britain by offsetting bad-debt charges it took during the financial crisis.

Carrots and sticks

An experiment conducted by the Nottingham School of Economics suggested that the payment of **bonuses** to workers did not encourage greater effort, and actually led to more shirking. But when penalties are introduced for slacking, worker efficiency is enhanced, reducing shirking by half.

Joseph Flom, a legendary lawyer who participated in many of the big hostile takeovers of the 1970s and 1980s, died at the age of 87. Mr Flom's clients included T. Boone Pickens, James Goldsmith and Ron Perelman. His services were sometimes retained by companies as a defence against those corporate raiders. A poor boy from Brooklyn, Mr Flom entered Harvard Law School without having earned an undergraduate degree.

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Daily Chart

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Qaddafi and his ilk

Blood and oil

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The West has to deal with tyrants, but it should do so on its own terms



LESS than two years ago, at the G8 summit in L'Aquila in Italy, prime ministers and presidents sat down to talk about world trade and food security with Muammar Qaddafi. Today Libya's tyrant is paying mercenaries to shoot his people in the streets like "rats" and "cockroaches".

Gangs of soldiers have roamed Tripoli, the capital, in open-backed trucks searching for people to machinegun. Snipers have fired indiscriminately from the rooftops and, it is said, helicopter gunships have spread terror from the sky (see article). The hope is that by the time you read this Mr Qaddafi has fallen, and Tripoli is sharing the joy of Benghazi to the east, where Libya's uprising began. Yet his people are paying a terrible price for freedom. And the fear is that even now Mr Qaddafi will somehow clamber over the bodies littering the streets to seize back the power that has slipped away from him.

As the Arab awakening has spread, each leader has sought to save his skin by being crueller than the last. In Tunisia Zine el-Abidine Ben Ali met peaceful crowds with concessions. In Egypt Hosni Mubarak tried to ride out the protests by mixing concessions with force. In Bahrain King Hamad bin Isa al-Khalifa resorted to violence, but did not have the stomach for the fight. In Libya Mr Qaddafi seems to crave blood. Screaming ghastly defiance in an hour-long tirade on February 22nd, he vowed to "cleanse Libya house by house". If he prevails, dictators the world over will know which course to follow.

Oil and geopolitics matter...

Mr Qaddafi is no stranger to brutality and persecution-that is how he has kept power for 41 years. He has oppressed his own people, sponsored terrorism and spread conflict in Africa. Why then did world leaders embrace him in L'Aquila? Why indeed have they dealt with autocrats and kings across the Middle East only to see the people rise up?

Just now, when the air in Libya is thick with gunfire, it is tempting to think that indignation alone could furnish a strategy for dealing with dictators. Rather than appease them and make grubby deals for the sake of oil and geopolitics, the argument goes, the only ethical foreign policy is to reject them and walk away. Sometimes that is true-it was what the West tried with Mr Qaddafi a quarter of a century ago, after his diplomats shot a British policewoman, his agents bombed a nightclub in Berlin, and his secret service started to bring down airliners.

Yet it seldom makes sense to isolate large parts of the world permanently, no matter how unpleasant the tyrants who govern them. America and the Soviet Union negotiated and traded with each other even at the height of the cold war. The

outside world has talked to the murderous regime in North Korea about its nuclear weapons. Economies need oil and it is idle to suppose otherwise. The question raised by the wave of protests spreading across the Middle East is not whether to deal with autocrats, but how to deal with them.

When strongmen are vulnerable, as now, the priority is to push them towards reform and away from violence. Barack Obama, America's president, was right to stand behind the protesters in Tunisia, Egypt, Bahrain and now Libya. America's army chiefs were right to use their influence to restrain Egypt's armed forces from shooting into the crowds (see article). And if Mr Qaddafi uses his air force to kill large numbers of his own people, the world would be right to enforce a no-fly zone over Libya.

But most of the time strongmen are not vulnerable, and then the judgment becomes more complicated. Libya, with all its cruelty and its tragic violence this week, shows why.

The ostracism of the 1990s failed to shift Mr Qaddafi from power, despite its moral clarity. But it did help persuade him that he stood to gain from engaging with the world. That opened the door to some shabby deals. The release of one of Mr Qaddafi's terrorists from a British jail, the sale of weapons to Libya and the elevation of a dictator into a statesman at the G8 all looked unwise at the time. Today they look despicable.



Explore our

And yet Mr Qaddafi also made concessions that were worth something to the West, to the region and to Libyans themselves. The greatest of these was to give up his nuclear programme and help to blow the lid on the nuclear black market centred on Pakistan. Libya also stopped sponsoring terrorism in the West, though it continued to sow mayhem in Africa. And, hard as it is to remember just now, Libya's people were less oppressed after their country rejoined the world.

Business should not be expected to live up to higher standards than government. But it too has to balance the practical with the moral-and be aware that the balance changes. Any deal based on an outright lie will come back to haunt you. The greed which this week caught up with those who accepted the Qaddafis as patrons of human rights will one day shame the lawyers, bankers and PR men vouching for the character of Russia's bloodstained oligarchs. In contrast, the oil firms who did business in Libya could justifiably claim they helped Western consumers and Libya's people-and they never pretended Mr Qaddafi was a fine upstanding fellow (see article).

...but sometimes cynicism can be deeply naive

This is not an argument for callousness. The lesson from the Arab awakening is an uplifting one. Hard-headed students of realpolitik like to think that only they see the world as it truly is, and that those who pursue human rights and democracy have their heads in the clouds. In their world, the Middle East was not ready for democracy, Arabs not interested in human rights, and the strongmen the only bulwark between the region and Islamic revolution. Yet after the wave of secular uprisings, it is the cynics who seem out of touch, and the idealists have turned out to be the realists.

Just occasionally, the power of ordinary people can overturn the certainties of the experts. That is why countries dealing with dictators should never confuse engagement with endorsement and why the West should press for human rights and democracy-even when it is inconvenient, as it is with China and Russia. Just ask those who have summoned up the courage to risk death for a cause on the streets of Tripoli.

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The future of food

Crisis prevention

Feb 24th 2011 | from the print edition

What is causing food prices to soar and what can be done about it?



AROUND the world, the food system is in crisis. Prices have rocketed; they are now higher in real terms than at any time since 1984. They could rise further still if drought lays waste to China's wheat harvest, as is feared. Food has played some role (how large is hard to tell) in the uprisings in the Middle East. High prices are adding millions to the number who go to bed hungry each night. This is the second price spike in less than four years. Companies are sounding the alarm and the G20 grouping of the world's largest economies has put "food security" top of its 2011 to-do list.

This attention is welcome. But today's spike is only part of a broader set of worries. As countries focus on food, they need to distinguish between three classes of problem: structural, temporary and irrelevant. Unfortunately, policymakers have so far paid too much attention to the last of these and not enough to the first.

Idle speculation

The main reasons for high prices are temporary: drought in Russia and Argentina; floods in Canada and Pakistan; export bans by countries determined to maintain their own supplies, whatever the cost to others; panic buying by importers spooked into restocking their grain reserves. Influences outside agriculture make matters worse: a weaker dollar makes restocking cheaper in local currencies; and dearer oil pushes up the cost of inputs (it takes vast amounts of energy to make nitrogen fertiliser, so fertiliser prices track oil prices).

Some people mistakenly blame yet another factor: speculation. True, increased financial trading might make prices more volatile, though the evidence is weak. But trading cannot drive prices up in the long term since for every buy, there is a sell. That has not stopped Nicolas Sarkozy, the current head of the G20, from trying to persuade the world's premier economic club to crack down on evil speculators.

At the moment big structural shifts, such as the growth of China and India, are influencing prices less than one might think. The two Asian giants are demanding more food (and more types of food), but so far their own farmers have largely satisfied that, so they have not needed to trade much (though that would change dramatically if China were to import wheat this year).

Over coming decades, though, such fundamental factors will matter more. A good guess is that food production will have to rise by 70% by 2050 to keep pace with population growth, the explosion of developing countries' megacities and the changes in diet that wealth and urbanisation bring. Big increases will be harder to achieve than in the past because there is little unfarmed land to bring into production, no more water and, in some places, little to be gained by heaping on more

fertiliser. Climate change may well exacerbate these problems. For the first time since the 1960s the yields of the world's most important crops, wheat and rice, are rising more slowly than the global population (see special report). The world cannot feed today's 7 billion people properly. How on earth can it feed the expected 9 billion in 2050?

The starting point may sound paradoxical: high prices. If 9 billion people are to be fed in 2050, countries that produce a miserable one tonne per hectare will have to produce two; the vast amount of food wasted on poor countries' farms-a third or more of the total-must be saved; and plant breeders will have to reverse the long decline in yield growth. All these things require higher returns to farmers, which will attract higher investment. Without these, there will not just be a billion hungry people (the equivalent of India) but 2 billion extra (two Indias) in 2050. Somehow, returns to farmers must rise without inflicting untold misery on the poor.

Let them eat research

It can be done. Targeting help to the poorest is part of the solution. Conditional cash-transfer programmes, such as Mexico's Oportunidades and Brazil's Bolsa Familia (in which the mother gets a small stipend on condition her children attend school and get a health check-up), can work well: 70% of the Bolsa payments go on food.

As for boosting farm output, it will come as no surprise that this newspaper believes that a big part of the answer is removing trade barriers and cutting subsidies. Lowering tariff walls round rich countries would increase poor farmers' exports. An agreement to limit trade bans might make exporters think twice before disrupting world markets. Countries should scrap targets for biofuels which favour an expensive, environmentally damaging business that needlessly distorts food markets. America's ethanol subsidy is a particularly egregious offender. Even opening up retailing to foreigners can help: companies such as Wal-Mart are good at getting food onto supermarket shelves rather than leaving it to rot in the fields.

Although governments can help a lot by getting out of the way in what has been a woefully distorted market, in one respect they need to do more, by reversing the decline in public spending on agricultural research. Unlike other farm subsidies, basic research works. The Green Revolution began with public research. So did Brazil's recent farming successes. Western countries have not learned the lesson. They have complacently cut back on the work done in universities and international institutions. It was a huge mistake. Basic farm research helps the whole world-and is a bargain. One billion dollars would provide many billions of benefits in terms of people fed and food riots forestalled.

Rich countries should therefore properly finance the "CG system", a network of government-backed institutes, carrying out research into rice, wheat, maize and livestock. And the emerging giants should chip in, too. China, India, Brazil and Russia complain that they do not get the respect they deserve. Here is a chance for them to earn it by helping underwrite a global public good. They should contribute to the CG system (as Mexico, to its credit, is doing) and make their national research available more widely. Few things matter to human happiness more than the yields of staple crops.

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Labour law in America

Showdown in Madison

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The fight to bring a little private-sector discipline to America's public sector has begun at last



ELECTIONS, Barack Obama once said, have consequences. The Republicans' triumph in last year's mid-terms was seen by many as an instruction from the electorate to hack away at America's sprawling government. In Washington, DC, that debate has gone nowhere. Both Mr Obama and his foes have produced fantastical budgets, full of illusory savings and ignoring the huge entitlement programmes. A government shutdown is looming. But look beyond the Beltway and something rather more promising is under way.

Unlike the federal government, which can borrow money to plug its budgetary gap, almost all the states are required to balance their budgets. Their revenues have been slashed by the recession; the stimulus funds that saw them through 2009 and 2010 have expired; medical costs are soaring. Tax rises remain unpopular, and so are deep cuts to important state-provided services like schools and the police. So governors are finally confronting the privileges that public-sector employees have managed to negotiate for themselves in recent decades.

For years politicians from both parties have given in to public-sector unions. The Democrats have been worse: witness their fealty to the teachers' unions. But Republicans have spoon-fed their allies in the firefighters and the police. In general, the goodies have come less in the form of pay rises (too visible), than in over-generous pensions and health care, early retirement and the sort of restrictive practices that were chased out of the private sector years ago. All these are bankrupting the states (estimates of the unfunded pension bill alone range from $700 billion to $3 trillion); they also make public-sector reform much harder. Try sacking a bad teacher.

A few Democratic governors have joined the fray-notably Andrew Cuomo in New York and Jerry Brown in California. But the fight is being led by Republicans. The main battleground is Wisconsin (see article), where a newly elected conservative governor, Scott Walker, is locked in combat with the unions. Up to 60,000 union supporters have been braving freezing temperatures to protest in Madison, the state capital.

Wisconsin pioneered welfare reform in the 1990s-arguably the last serious attempt to do something about America's straggling government. This time, to his credit, Mr Walker seems to have won one battle: the public-sector unions are now willing to pay more towards their health care and pensions (though his plan would still leave state workers with a better deal than most private-sector employees get). He deserves to win a second: to end the automatic deduction of union dues from salaries, which in effect casts state government as a fund-raiser for the union (with labour bosses recycling some of the cash back to tame politicians). However, in his third battle-trying to end the right to collective bargaining in the public sector-Mr Walker is going too far. If the public sector is to work more like the private sector, workers should have the same rights. Abolishing the automatic deduction would help curb the abuses that Mr Walker wants to do away with.

A boss who can't say no

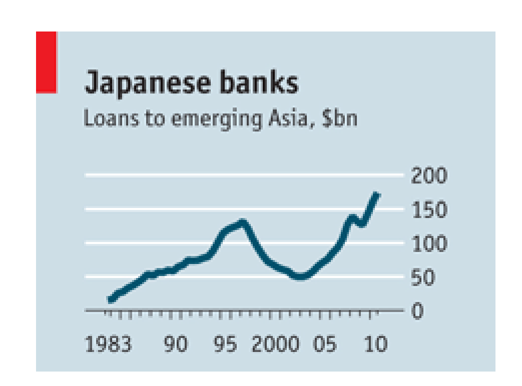
So Mr Walker is not completely right. But Mr Obama, who threw his weight behind the unions, not the taxpayers, at the first sign of political cannonfire, is completely wrong. No doubt the unions will now dutifully stuff more dollars into Mr Obama's campaign chest; but elections are won in the centre and, with the federal deficit bulging, reforming the state could be one of the main issues next year. Does America really want to retain a chief executive who appears to have so little interest in making the public sector work more efficiently? That is a question many independents should ponder.

Japanese banks

Back from the dead

Feb 24th 2011 | from the print edition

The world has forgotten about Japan's banks. Both Western and Chinese bankers should refresh their memory



FALLS from grace don't come any harder than that of Japan's banks. In the late 1980s they were the biggest financial firms on the planet and picked up everything from California's banking system to impressionist paintings. A decade later they were a global laughing stock, riddled with the bad debts that helped to cripple Japan's economy and run by managers famed as world-class procrastinators.

After infamy came obscurity. Today most financial types have a view about Goldman Sachs. Few outside Japan bother even to learn the names of Mitsubishi UFJ, Sumitomo Mitsui or Mizuho, Japan's three biggest banks. Such ignorance is unwise, not just because these firms are back on their feet (see article), but also because their experience holds lessons for both battered Western firms and the giant Chinese banks that are now at the top of the industry's global league table.

Japan's big three banks remain among the world's 30 largest by assets. Although they still make lousy returns at home, they used the recent credit crisis to expand abroad. Mitsubishi UFJ took a stake in Morgan Stanley and seized control of an American retail bank. Sumitomo listed its shares in New York, partly to make deals easier. Nomura, Japan's sixth-biggest firm, bought Lehman Brothers' operations in Europe and Asia.

Nomura seems to be struggling but the industry's re-expansion abroad will continue. It is most obvious in emerging Asian economies, where Japanese banks' loans now exceed their previous peak in 1997 but where the model being used looks somewhat safer than in the past. The banks are moving gradually, raising some local deposits to help fund lending there and not relying only on Japanese customers, but winning local clients too. The results are eye-catching. Mitsubishi UFJ has an emerging-Asian loan book three times larger than JPMorgan's, two-thirds of it with non-Japanese borrowers.

Pride comes before a fall

For China's banks the lessons lie mainly in the rapid fall, rather than the slow rise. China, too, has a suspiciously cosy relationship between banks, officials and companies that can be a licence for bad debts. There is a little of the same arrogance: that Chinese finance can teach the outside world a thing or two. And like Japanese banks, the Chinese ones gather deposits from thrifty households but lend only some of these back out, mainly to companies, parking the vast excess in government bonds and with the central bank (although the Chinese government, unlike Japan's debt-laden government, is a net creditor that invests these excess funds overseas).

One danger signal will be if the Chinese banks start using their idle domestic deposits to fund a lending bender abroad. When inexperienced banks write blank cheques abroad they usually accumulate losses as well as the odd art masterpiece. But they have resisted that temptation so far: their regulator is rightly nervous, partly about the currency risks involved.

For Western banks, the uncomfortable parallel is with their Japanese peers' slow recovery. American and British banks at least seem to have grasped the main lesson: that it is vital to deal with bad debts fast. Some continental European banks have been more sluggish in cleansing their balance-sheets. The Japanese banks wasted a decade running away from reality.

But it is the second decade of Japan's banking depression that carries the gloomier message, especially for Western bank shareholders. They should not be deluded by the recent flurry of reasonable results into thinking that their prospects are rosy. When the private sector is deleveraging and interest rates are low, banks normally struggle to make adequate profits. To ensure long-term prosperity, European and American firms will surely have to cut costs and re-engineer products more than they have done so far. It will take a long time.

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Basque politics

Hold your nose, and let them stand

Feb 24th 2011 | from the print edition

Don't feel sympathy for the descendants of the political wing of ETA. But don't ban them



IN PHILOSOPHY there is a paradox known as the Ship of Theseus. If, over time, all the ship's planks are replaced, does it remain the same ship? The judges on Spain's Supreme Court will soon face a mirror image of this question. Sortu, a new political group that seeks independence for the Basque country, is the brainchild of senior figures from Batasuna, a party banned in 2003 for its links to the terrorists of ETA. Sortu says it is not the same as Batasuna, and should be allowed to register as a party (see article). On this, if little else, it is right.

Many Spanish people disagree. Sortu, says one opposition politician, is still the "claw" of ETA, only with "painted nails". Such scepticism is understandable. The creators of Sortu belonged to a party that took orders from gunmen and bombers responsible for hundreds of deaths. Batasuna probably channelled the public funds it received into ETA's pockets. Many thought the distinction between Batasuna and ETA illusory.

Unlike Sinn Fein in Northern Ireland, Batasuna did not appear to provide a useful "bridge" between violent separatism and constitutional politics. Rather than aggravate Basque-nationalist grievances, as some, including this newspaper, feared, the ban on the party seemed to help marginalise the militants. In June 2009 the Spanish court's decision was upheld by the European Court of Human Rights.

So what has changed? ETA is still not to be trusted; a "permanent" ceasefire in 2006 lasted just nine months. But the group is far weaker today. A string of successful police operations has sapped its manpower and morale. Since 2000 it has killed 58 people; three decades ago it often took more lives than that in a year. Unlike the 2006 truce, which was a tactical move ETA made when it thought it was still strong, its latest ceasefire, declared in September and made "permanent" in January, was partly the result of pressure by former Batasuna leaders, including some of those standing behind Sortu, who have lost faith in the armed struggle.

More importantly, Sortu says it rejects ETA's violence. Seeking to satisfy the judges, the party has even written its denunciations into its statutes. This is a significant shift. Batasuna never condemned ETA's terrorism, and often glorified the gunmen. The new party has left itself little room to operate in the same way. Its stance could act as a brake on violence; ETA may not want to drive a public wedge between itself and the politicians by forcing Sortu to condemn it. It is the party's decisive rejection of violence, above all, that means Spain's judges ought to turn down prosecutors' calls to ban it.

Legalise it, do criticise it

Granting a party the right to take part in elections does not bestow on it the seal of legitimacy. The desperadoes of Sortu have done little to earn this. The whole history of their movement is one of intransigence and truculence. Their ideological allies in ETA have repeatedly shown themselves to be untrustworthy negotiating partners. Even now they show no sign of making moves to decommission their arms stocks.

But bringing the political representatives of Basque militancy into the democratic light would be the best way to show up these flaws. Indeed, perhaps the best outcome would be for those who favour Basque independence to vote for Aralar, a separatist party that split from Batasuna in 2000 over its continued backing of terrorism. That would be the ultimate rejection of ETA. And it has to happen at the ballot box.

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Letters

On Germany, Scotland, the Voting Rights Act, 3D printing, American sports, Belgium, Italy, history

Feb 24th 2011 | from the print edition

Letters are welcome via e-mail to letters@economist.com

Germany's economy

SIR -*The Economist* was right about Germany coming out of the financial crisis with flying colours, though I disagree that it was "the best performer of the past decade" among G7 countries ("Vorsprung durch exports", February 5th). Between 2001 and 2010 Germany had the lowest average share of net investment in the OECD, a direct result of having exported 62% of its aggregate savings. The country suffered mass unemployment that forced the Schroder government to implement painful reforms in 2003-05, putting a great strain on German society.

Furthermore, the reason why Germany tops your growth per person chart is simply that you deflated national GDP figures using different price indices. That makes little sense in a currency union, as GDP measures the value of a country's output rather than its consumable income. If the GDP figures are deflated using any common euro-area price index, it turns out that Germany's rate of growth per person was the lowest of all euro countries in the past decade, despite the fact that the unfavourable economic situation contributed to reducing the number of people residing in Germany.

Now, after the crisis, Germany is growing fast because its banks no longer dare to export German savings, preferring to offer them for domestic investment instead.

Hans-Werner Sinn
President

Ifo Institute
Munich



SIR - The prolonged success of the German economy is always an inconvenient reality for thosewho support a broadly Anglo-American approach to economic management, such as *The Economist* ("A machine running smoothly", February 5th). If liberal labour markets, low taxes and worship at the altar of shareholder value were the key determinants of success, you would be writing about the glittering future awaiting Britain and the United States, not Germany.

The truth is that the Germans are successful because their companies are well managed by competent, educated employees who care more about whether the company will exist in a quarter-century rather than just the next quarterly earnings.

Maximina Yun
London

SIR - There are other examples of Wunderlands in northern Europe ("Angela in Wunderland", February 5th). The Scandinavian countries, the Netherlands, Switzerland and Austria have all chalked up solid growth recently and have stable finances. Including Germany, the combined current-account surpluses of those countries is higher than China's. The broader question you should ask is, why is northern Europe so successful?

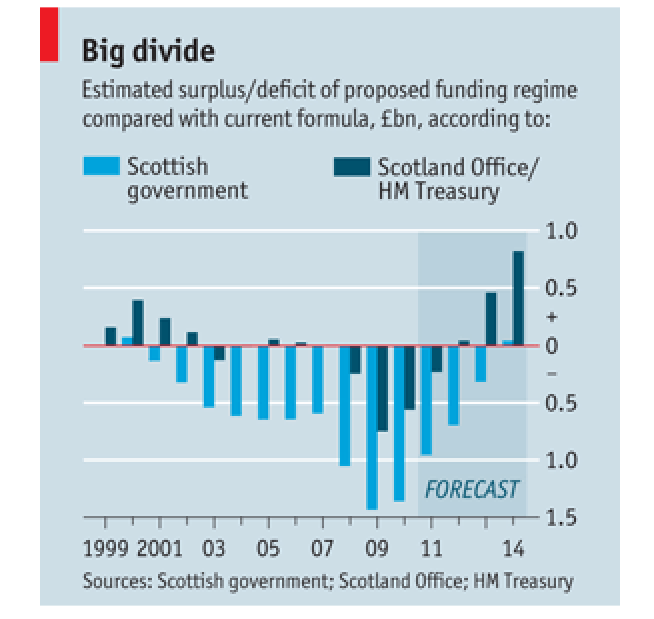
Robert Bachmann
Lengnau, Switzerland

* SIR - It may well be desirable for German firms to stimulate domestic demand. However, German consumers are more resistant than other Westerners to the kind of unnecessary spending that that policy implies. I have many German friends and acquaintances and stay often in their homes, and am repeatedly struck by the extent to which Germans buy quality and make it last. For example, I recently spent the night in a house I first visited in 1990. I washed under the same shower, made my breakfast in the same kitchen and listened to the same stereo as 20 years ago. Nothing had been refitted or replaced. Everything worked perfectly.

Another couple I know, both public-sector professionals in their mid-30s, have a 1985 Opel as their family car, bought secondhand from a genuinely careful previous owner. They will replace it one day, but only when the cost of maintenance stops making sense.

Alex Frazer
London

The Scotland bill



SIR - You suggested that our analysis of a planned bill in the House of Commons to give Scotland more control over income tax was based on a single year's figures, in order to exaggerate the deflationary bias of the bill's proposals ("War of numbers", February 12th). This is not the case. Our analysis takes 1999 as the starting point and calculates the budget that would have been available to the Scottish government in the following years based on the subsequent growth in Scottish income tax. We compared the resources available under the current funding framework with those that would be available under the proposed bill, holding all other policies and variables constant. It is an unbiased assessment.

Had the bill's financial provisions been in place when the Scottish Parliament was re-established in 1999 the cumulative impact would have been a reduction in Scottish public spending of almost pound8 billion ($13 billion). The British government's proposed solution is simply to provide a short-term windfall to the Scottish budget. This does not address the fundamental issue of a long-term deflationary bias in the bill that could ultimately expose the Scottish budget to further spending cuts.

John Swinney, MSP
Cabinet secretary for finance
Edinburgh

Electoral boundaries



SIR - America's Voting Rights Act has had a salutary effect on the civil rights of America's racial minorities, up to a point ("The preclearance problem", February 5th). For it has also exacerbated ethnic tensions by proscribing any redrawing of congressional districts that weakens the clout of minority voting blocks. The resulting constituency borders are so convoluted that Elbridge Gerry himself would be astonished.

Roughly 85% of America's population growth has been among minorities. Creating new congressional districts to reflect this growth is right, but to do so primarily on the basis of ethnic identity militates against assimilation, institutionalises separatism and creates resentment among other citizens. It stops America from leaving whatever might be historically regrettable in the past and moving forward.

This nation no longer needs and cannot afford black- or Hispanic-only districts, just as it can no longer tolerate white-only constituencies. The motto of the United States is *E pluribus unum*. The VRA is now an obstacle to that ideal.

David Mayger
Alexandria, Virginia

Thinking out of the box

SIR - Your briefing looking at the ways in which three-dimensional printing could transform manufacturing mentioned printing devices that cost between $20,000 and $250,000 ("The printed world", February 12th). But there is also a thriving open-source movement in 3D printing. Projects such as Makerbot and RepRap's "Mendel" machine make 3D printing available for less than $1,000. Adrian Bowyer, a mechanical-engineering professor at the University of Bath, is the co-founder of the RepRap initiative, and shares instructions on the web for all. I recently attended a 3D-printer meeting in Atlanta and was thrilled to see a dozen variants of these ingenious machines "printing" locally designed products.

Not only are Mendels inexpensive, they are at least in part self-replicating. Both the software and the printed products still have some rough edges, but judging by the passion of the owners I met, the revolution described in your article is at hand.

David Laufer
Managing partner
BrandExpertise
Atlanta



SIR - The Stradivarius replicated on your cover illustrated the level of complexity in 3D printing now well within reach. Another example of the scale of the potential is the production of a chess set just a few millimetres high, which includes a rook complete with internal spiral staircase.

Drummond Hislop
Director
Sustainable Engine Systems
London

SIR - I should like to know who concluded that the violin on your cover, made with a laser-sintering 3D printer, "plays beautifully"? The innovation of 3D printing may one day revolutionise manufacturing, but I doubt that Antonio Stradivari will be turning in his grave, or whether modern violin-makers will fear that their craft will become obsolete overnight.

For more than 300 years no one has been able to ascertain exactly what the secret was of the Cremona masters. Was it their aged wood, their varnish, or some magical formula that defies analysis altogether? Granted, Jascha Heifetz could make an aluminium fiddle sound beautiful, even played with a fibreglass bow, as he did on concert tours in tropical climates. Yet I cannot imagine any living violinist playing a recital at Carnegie Hall with a 3D-printed violin. I will not be trading in my 1715 Daniel Parker any time soon.

Les Dreyer
Retired violinist of the Metropolitan Opera orchestra
New York

SIR - For the "Star Trek" fans among us, the 3D printer is old hat. There were dozens of them on the *Enterprise*, used primarily for putting together meals, one molecule at a time. In fact, that is how Captain Picard would get his favourite drink, synthesised in an instant whenever he requested, "Tea. Earl Grey. Hot".

Agustin Barrios Gomez
Mexico City

It's just not cricket



SIR - Being a youngish athlete who is American and who has lived in Britain, the chiding comments in your article on rugby in relation to "wimpish" American football were not new to me ("Worth a try", February 5th). As I have explained countless times to my British friends, the equipment worn by the players in football allows for harder hits and physicality. I don't know anyone who would describe NFL games as wimpish. Players often drop like flies.

But I was more disappointed with your assertion that "teamwork and fair play" don't count for much in American sports. Every country has examples of controversial and outlandish sport celebrities. I doubt there is a higher proportion of them in America than anywhere else.

Max Walters
Cleveland, Ohio

SIR - Your below-the-belt comments on American sportsmanship had me feigning injury, rolling around on the ground and appealing to the referee for redress, just like a European soccer player.

Matt Hennessy
Los Angeles

SIR - Whereas loyal readers of Bagehot were given a lengthy essay at the time of the World Cup linking the England football team to its nation's history, culture and economics (June 12th), Americans were treated to an ethnocentric ramble on rugby in Super Bowl week.

Joseph Nejedlo
Hortonville, Wisconsin

Bristling in Brussels



* SIR - A letter that sang the praises of Belgium (February 12th) hailed the fact that there are "no politicians in jail". That is laudable, but not surprising: some of Belgium's best armed-robbers are not in jail either. There have been three armed robberies inside the European Parliament building in less than two years, and several parliamentarians, plus countless civil servants, have been attacked, threatened and robbed on adjacent streets.

Drug-smugglers are similarly at liberty. Unlike the parliamentary armed-robbers, some have been caught, but they too are not in jail. Last week, a man caught with several kilos of cocaine at Brussels airport was released because the judge on duty was not able to remand him owing to a lack of transport and laptop computers.

Possibly the reason the judge couldn't get there was that Brussels was at a standstill. After two violent attacks on drivers, public-transport workers in Brussels went on strike to protest about dangerous working conditions.

What your letter-writer calls "democracy in action" feels remarkably like anarchy in inaction to some in Brussels.

Georgina Tate
Brussels

The Italian connection

SIR - When writing about the "extraordinary spectacles" offered by Italian prime ministers ("Berlusconi v the city of women", February 19th), you could have made an elegant connection to your briefing on the awakening of the Arab world ("After Mubarak"). After all, Bettino Craxi fled from Italy to Tunisia, where he died, unmolested by the Ben Ali regime. It has been claimed that Craxi tipped off Muammar Qaddafi about America's planned bombardment in April 1986, and today Libya's brutal dictator is a chum of Silvio Berlusconi himself.

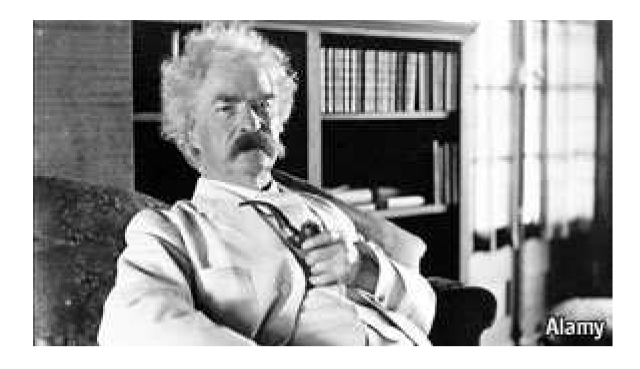
As it happens, both men enjoy the company of beautiful women: Mr Qaddafi is often accompanied by a gaggle of attractive female bodyguards while Mr Berlusconi is surrounded by sexy girls.

Piotr Zientara
Gdynia, Poland

SIR - I consider myself well versed when it comes to sexual activities, but please enlighten me, what the heck is a "bunga-bunga session" ("Ruby red face", February 12th)?

Noah Johnson
Los Angeles

The pentameter of the past



SIR - To Lexington's observation that history never repeats itself exactly (January 29th), I offer the following bit of wisdom, courtesy of Mark Twain: History doesn't repeat itself; but it sometimes rhymes.

Steve Scheiber
Slingerlands, New York

* Letter appears online only

The Arab uprisings

Endgame in Tripoli

Feb 24th 2011 | *TUNIS* | from the print edition

The bloodiest of the north African rebellions so far leaves hundreds dead



IT WAS vintage Muammar Qaddafi. After a blood-soaked week of unrest, Libya's leader delivered a rambling, hectoring, fist-pounding speech on February 22nd. He blasted the popular uprising that has left hundreds dead and torn much of the vast north African nation from his grasp as the work of drug addicts and agents of al-Qaeda and America. He shouted that he would never surrender and ordered his men to hunt these "greasy rats" from house to house, without mercy, and take what they wanted. Then he drove off in an electric golf buggy.

After 41 years of his violently capricious rule, Libya's 6.5m people know Mr Qaddafi well enough to take him seriously. No one expects him to go quietly, as the presidents of neighbouring Egypt and Tunisia did. In the densely populated region around the Libyan capital, Tripoli, marauding gangs loyal to the regime, backed by African mercenaries and well-armed troops commanded by Mr Qaddafi's son, Khamis, have spread enough terror to stall the momentum of the street protests that began on February 15th. For now Mr Qaddafi appears safe at his headquarters, within the triple walls of the sprawling Bab al-Aziziya barracks near the city centre.

State television remains in denial, broadcasting rallies in support of the leader, and armed men are intimidating doctors and taking bodies from the streets in an effort to cover up the scale of the deaths. Yet if Mr Qaddafi thinks he can make a comeback, he is surely mistaken. One by one, the pillars of his regime have crumbled. After days of clashes between unarmed protesters and government forces, the whole of Cyrenaica, the country's fertile eastern coastal region, has fallen under rebel control (see article). Many army units have mutinied. Two Libyan air force pilots have defected to Malta, taking their aircraft with them and claiming that they had refused orders to bombard Benghazi, Cyrenaica's main city.

Oil production has slumped (see article) and the economy has ceased to function, not least because thousands of the foreign workers who keep it running have fled, been evacuated, or are trying desperately to leave. Britain's government has been accused of doing too little to get its citizens out, while fear of reprisals against American oil workers persuaded President Barack Obama to say nothing about Libya until February 23rd, when he condemned the violence, but took no action.

The ministers of interior and justice, numerous Libyan diplomats and a senior aide to Saif al-Islam, the most prominent of Mr Qaddafi's seven sons, have all resigned and declared allegiance to the protest movement. The uprising may even have penetrated Mr Qaddafi's inner circle at Bab al-Aziziya, where it is said only one brigade remains loyal to him. Leaders of some of Libya's biggest tribal groups, important constituencies in a country that has only recently urbanised, have openly

turned against him. In the region and worldwide, Libya's "Brother Leader" has few friends any more. Governments of all stripes have condemned his tactics against civilian protesters, reportedly including the deployment of helicopter gunships, snipers and heavy-calibre machineguns.



Explore our

Events in Libya unfolded as they have elsewhere. They began with peaceful street protests, word of which spread on the internet, and accelerated dramatically when security forces responded with deadly force. Libya's government also severed communications, blaming foreign meddlers, warning of chaos, and suggesting that reforms are in the offing.

Even the televised speeches by Saif al-Islam and Mr Qaddafi himself, while more chilling in tone, echoed performances by Zine el-Abidine Ben Ali of Tunisia and Hosni Mubarak of Egypt. Both addressed their people with a mix of conciliation and defiance. Both, like Mr Qaddafi, referred to themselves in the third person and belittled the scale and intensity of the opposition. And both then abruptly left office.

Yet Libya is a very different place from its neighbours along the Mediterranean. Its territory and wealth are greater, its population sparser, its sense of nationhood more fragile. Libya's history has been far more traumatic, too. As many as a quarter of its people died, many of disease and starvation in concentration camps, during three decades of Italian invasion and colonial rule that ended with the second world war. The first 20 years of Mr Qaddafi's rule, after a coup he led as a young soldier in 1969, brought wrenching social change. He tried to impose his Third Universal Theory, a sort of Bedouin socialism that exalted the destruction of state bureaucracy, confiscated wealth and empowered "peoples' committees" as the sole form of government.

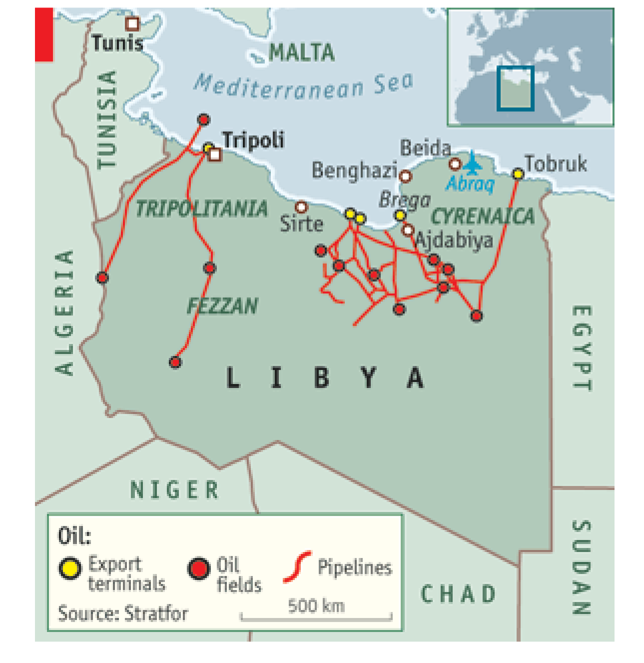
Mr Qaddafi broke resistance to his policies with a campaign of random terror against "stray dogs", as he labelled dissidents. Dozens, both in Libya and abroad, were murdered by his agents. Thousands fled into exile. Much of the country's income from oil, which soared in the 1970s, was wasted on arms purchases and sponsorship of revolutionary movements around the world. Some 4,000 Libyan soldiers are believed to have died, for no gain, during Mr Qaddafi's repeated interventions in neighbouring Chad.

In the late 1980s Libya fell under international sanctions after Mr Qaddafi was charged with sponsoring the mid-air bombing of two passenger aircraft, French and American, with the loss of more than 400 lives. In the 1990s hundreds more Libyans died during a brutal campaign against Islamist radicals. Most of the killings were in Cyrenaica, where resentment against Mr Qaddafi also stemmed from economic neglect, the attachment that some retain to the royal family he overthrew, and the fact that Cyrenaica has historically been independent of western Libya.

Mellowing, but not changing

In recent years Mr Qaddafi has appeared to mellow. As it became clear that state-owned enterprises were failing to supply markets, his regime abandoned radical socialism, inviting foreign investment and encouraging private business. International sanctions were lifted after Mr Qaddafi accepted responsibility for the airliner bombings, paid compensation and surrendered two of his agents for trial. He agreed to halt research into nuclear and chemical weapons. He began to cultivate an image as the wise man of Africa, playing host to other leaders. He invited some exiles to return, and allowed his son Saif to present himself as the kinder face of the regime.

Yet the underlying nature of his rule did not change. Behind the confusing veil of peoples' committees, the reality was that Libyans were denied any meaningful role in politics. For a country with the largest oil reserves in Africa, they were surprisingly poor. The government supplied shoddy housing, free cars, schooling and health care, but state salaries seldom exceeded $500 a month and the economy sucked in some 1.5m foreign labourers. Young Libyans struggled to find useful employment. Meanwhile, as in Egypt and Tunisia, Mr Qaddafi's relatives and cronies monopolised many of the most lucrative business opportunities. And Libya's security services still inspired fear.



Nor, as has now become abundantly clear, had Mr Qaddafi really changed his stripes. As far back as 1975 he told an audience of students that he rose to power by force as the leader of a revolution and could only be removed by force. In one of the concluding passages of his Green Book, a stream-of-consciousness promoted as a blueprint for his leadership, Mr Qaddafi, with a characteristic mix of bluntness and illogic, declared that his ideology was "theoretically" a genuine democracy, but in reality, "the strong always rule." "I was the one who created Libya," he is said to have declared recently, "and I will be the one to destroy it." In the typical fashion of dictators, Libya's leader appears to be confusing his own person with the nation as a whole.

There is little doubt that Libya, even without Mr Qaddafi, will remain a messy and possibly violent place. His rule has burdened it with a legacy of inadequate institutions, tangled laws and burning animosities. Sorting through this wreckage will take time, energy and ingenuity. Yet Libya does have some things going for it. It has plenty of cash, with foreign reserves alone totalling nearly $140 billion. Its talented exiles are eager to return. And, in a sense Mr Qaddafi is unlikely to have foreseen, the trauma of his rule may have forged a national identity much more heartfelt than it was before.

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The liberated east

Building a new Libya

Feb 24th 2011 | *BEIDA AND BENGHAZI* | from the print edition

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Around Benghazi, Muammar Qaddafi's enemies have triumphed



Freed from the monkey king

IN A parliament building that predates the Qaddafi regime, the founding fathers of a new Libya have gathered. In this Green Mountain town, perched above the coastal sand-flats, they plan to write a new constitution and restore civilian rule. A week after their uprising against 41 years of dictatorship, lawyers, doctors, tribal leaders, colonels, university professors and even Muammar Qaddafi's justice minister are preparing for power. Inside and outside the assembly hall, crowds of men, women and children cheer and cry for their "monkey king" to leave.

Along a 600km stretch of the Mediterranean, from the Egyptian border west to Ajdabiya, Mr Qaddafi's rule has been sloughed off. All across eastern Libya, youth committees of the February 17th revolution have sprung up to try to fill the vacuum. At former checkpoints, now burnt-out hulks, and at the border, youths joined by army deserters wearing vests saying "No to tribalism, no to factionalism" stop cars to ask for donations of blood.

In Tobruk, an eastern port town of 120,000, volunteers with red berets have occupied the *mataba*, the headquarters of Mr Qaddafi's local militia, and turned it into a storehouse stacked with donated supplies for the thousands still camped in the central square. These "cockroaches", as Mr Qaddafi called them in his speech on February 22nd, include lawyers and university lecturers. Other volunteers guard the port, local banks and oil terminals to keep the oil flowing and ward off looters. Teachers and engineers in the foyer of a local hotel have set up a committee to collect weapons, and another committee in Sattah, near Beida, has collected clothes, food and blankets for hundreds of captured government troops held in a school.

Omnipresent only a week ago, the emblems of the cult Mr Qaddafi fostered lie shattered. A statue of the Green Book, his manifesto, has been reduced to rubble. "There were so many billboards of Qaddafi, he used to appear in our dreams," says Idris Hadoth, a schoolteacher. No longer. The tricolour of King Idris, the monarch Mr Qaddafi overthrew in 1969-beyond the memory of most-flies across the east, and where that is unavailable red cloth flutters. Anything to erase the emblem of the regime's all-green flag.



Explore our

Mr Qaddafi did nothing for this region. Despite its oil wealth, the east appears devoid of infrastructure apart from its oil industry. Oil is stored in first-world depots, water in concrete pits. The only ships docking at Tobruk's jetties are tankers, and despite the energy flow there are blackouts. So poor is health care that Libyans with enough money head to Egypt or Tunisia for treatment. An elderly teacher points out the spelling mistakes in the graffiti daubed across the town. Until recently, foreign languages were banned from the syllabus; they were enemy tongues, and talking politics with foreigners carried a three-year prison term. "None of us can speak English or French," laments the teacher. "He kept us ignorant and blindfolded."

"All our wealth went abroad," says a law student distributing food. "He built towers across Africa, but we don't even have a playground." Tobruk had a cinema, old-timers recall, but Mr Qaddafi closed it soon after taking power to guard against public gatherings. Without entertainment, the town shut down after dark.

That was why electronic media, from Al Jazeera to the internet, were so vital. They offered forms of communication beyond Mr Qaddafi's grasp. The regime shut down the internet as soon as the uprising started, but by then it was too late.

Libya's second city, Benghazi, staged the first demonstrations on February 15th. Barely 60 youths showed up. Similar protests erupted in other cities over the next two days, and were met by security forces with heavy weapons. In Tobruk and Beida protesters kept the anti-aircraft cartridges as evidence, but four deaths and 80 people injured only spurred larger numbers onto the streets. In Beida and other cities, youths who despaired of confronting African mercenaries' heavy-calibre machineguns with stones resorted to dynamite used for catching fish. They broke into the compounds of the security forces, ransacked them and put them to the torch.

In most barracks along the eastern coast, the armed forces quickly stood down rather than turn on their countrymen-sometimes at the cost of their lives. Protesters breaking into the Benghazi army base found 15 officers shot dead, apparently for refusing orders to open fire. Using bulldozers looted from foreign companies working in Libya, protesters raided their vast armouries. The March 28th base, east of Tobruk, was littered with open safes, gas-masks, helmets, cardboard boxes of ammunition (stamped "Socialist People's Libyan Arab Jamahiriya") and Russian explosives. At al-Hisha and other bases near Beida, youths captured tanks and anti-aircraft guns and turned them on the few bases manned by *katibas*-literally brigades, but more closely resembling militias-flown in from Tripoli.

After four days of fighting, some 300 fighters at Abraq air base-the regime's last stronghold in the east, and a supply-point for reinforcements-fell to the opposition. Other opposition forces have reportedly pushed to Ajdabiya, west of Benghazi; and a turncoat colonel said clashes had erupted between tribal forces in Sirte, in the heartland of Mr Qaddafi's tribe.

Freedom and chaos

To a man, Cyrenaica's new landlords insist they are the launchpad for a countrywide liberation, with Tripoli as the capital, and not a separatist movement. Delegates to the new assembly paint Libya's future as a liberal parliamentary democracy, and have decked Beida's parliament building in portraits of King Idris and his tricolour. Lawyers from Tobruk and Benghazi claim to be running civilian committees, and have called for the restoration of the 1952 constitution, amended to uphold a multi-party republic. But the hold of the lawyers seems uncertain in Benghazi. The royal tricolour-which sprouts on lampposts across Beida-is a rarity, as if people are uncertain which way the tide of history will go, and though the police have finally left their posts, they have not helped the civilian leadership fill the resulting vacuum, apparently for fear of appearing in public.

And not all are so nostalgic for rule by lawyers. Though the protests began peacefully, they owe their success in Libya's east as much to victorious fighters as people power. Youths celebrate by shooting heavy weapons, as well as honking horns. And having defected early in the uprising, army units, too, will claim their stake in the new order. A secret ten-man military committee has been formed, says its spokesman, Colonel Hamid Sanussi, and has recalled forces to their bases, he says. The military committee is also raising a Martyrs' Brigade, which promises to marshal an estimated 50,000 armed youths if Cyrenaica needs to defend itself.

How many will join that brigade is unclear. But almost everyone has either been tortured and imprisoned, or has a close relative who has, and has scores to settle as well as stories to tell. After the mass looting of army bases, they are also armed. "Under Qaddafi, carrying weapons was banned. Now everyone does it," says the justice minister.

Thanks to the ransacking of army bases, others have also acquired the means to resist. Jihadist groups have kept a low profile. Their previous armed uprisings were a reaction to suppression, says a lawyer who claims that the assembly remains committed to a separation of religion and state. But Beida is also the seat of the Sanusi, a Sufi order founded by

an Algerian mendicant in 1837, which subsequently waged a *jihad* against Italian rule, and gave birth to the monarchy. They too may contend for a place in the new order.

Blaming outsiders

Although the roots of the uprising are internal, Cyrenaica's opposition is disgusted at the perceived lack of external support. "They care more about oil than our blood," says a Tobruk history teacher.

Feeding their grievances is an ingrained resentment of foreigners that verges on xenophobia. The easterners see Western contractors reaping the benefits of their oil wealth to the tune of millions of dollars, while propping up the regime in return. And although a third of Libyans are jobless, 1.2m Egyptians and hundreds of thousands of other migrant workers have found work in Libya-the result of Mr Qaddafi's aborted attempts at African and Arab unity. Among the spray-painted graffiti in Beida, some denounce foreign workers and call Mr Qaddafi a Jew.

Migrant workers fleeing to Egypt reported scenes of mayhem as looters stormed their compounds, unprotected because the regime banned private security guards. An Egyptian accountant described how sword-wielding youths drove off in his company cars. A British project manager building an extension to Darna's university reported that youths arrived with a dozen trucks to cart away the site's 80 computers and other hardware, before burning his pre-fab to the ground.

Libyan oil-industry operators are now threatening to destroy pipelines, and cut supplies to Europe, if European states fail to intervene to end Mr Qaddafi's rule. Workers at Brega, one of Libya's five ports used by tankers, stopped work on Monday, said Mansour Saleh, a manager at a Tobruk-based oil company who oversees the pumping of 300,000 barrels a day. "If that doesn't make them act against the tyrant," he added. "We'll destroy the wells." But on the evidence of his speech from Bab al-Aziziya, Mr Qaddafi will not be tormenting them much longer.

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Egypt's and Tunisia's transitions

When regimes stick

Feb 24th 2011 | *CAIRO AND TUNIS* | from the print edition

Toppling leaders is one thing. Disposing of their governments is another

WHEN Hosni Mubarak was toppled as Egypt's president, young volunteers poured into Tahrir Square to pick up litter, repaint the railings and even, to the sorrow of some, wash revolutionary graffiti off the walls. Many thought Cairo had never looked cleaner. Egypt's government, by contrast, looks much the same.

The Supreme Military Council, which is now in charge, has proceeded slowly. The army clearly remains uncomfortable about governing directly. After ten days of consultations, a cabinet shuffle has ousted some unpopular figures and drawn in members of the opposition Wafd (liberal) and Tagammu (socialist) parties. But controversial figures remain: notably Ahmed Aboul Gheit, the foreign minister who defended the previous regime, and Ahmed Shafiq, the prime minister recently appointed by Mr Mubarak. The result is a cabinet that is neither purely technocratic nor quite a national unity government, and whose powers are unclear.



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Nor are the protests over. On February 22nd a few hundred people went to Tahrir Square to protest against the slow pace of change. The next day, former police officers who have been trying to get their jobs back set fire to the interior ministry. A big political protest is expected on February 25th.

The military council has also appointed a committee to amend the suspended constitution. At its head is a respected Islamist thinker and jurist, Tariq al-Bishri. The appointment of a former MP from the Muslim Brotherhood raised a few eyebrows, particularly after Sheikh Youssef Qaradawy, a preacher close to the Brothers, was allowed to lead Friday prayers for a crowd of 2m in Tahrir Square. Some secularists fear that the new regime is empowering the Brotherhood in exchange for help in calming the streets. Egypt's largest Islamist movement has already announced that it intends to form a political party-though it will not field a candidate for president.

Some activists, especially the youth leaders, are demanding an entirely new constitution, a civilian transitional council to rule alongside the army, and more immediate changes. Others want to see the heads of state companies, newspapers and television stations removed. The military council talks to some of these critics. Others it ignores. It speaks sometimes through martial announcements, sometimes via social networks, and most recently sent a few generals to appear on a popular talk show. There they defended Mr Shafiq.

And that is the trouble; one man may fall, but entrenched regimes are hard to shift. Tunisia, which revolted first, throwing out its president of 23 years, Zine el-Abidine Ben Ali, has also been the first to discover how grimly the old guard cling on.

Thousands have been rallying in Tunis to call for the resignation of the interim prime minister, Mohamed Ghannouchi, a veteran of many Ben Ali governments. They are camped once more around government buildings on the edge of the Kasbah. Mr Ghannouchi has dismissed many of the old guard from the cabinet, but that was not enough for his opponents. Reports also abound of officials being replaced and past abuses investigated; but protesters still worry about lack of transparency, and a media that is too subservient. "We need to change the spirit of the system," says Azyz Amamyma, a blogger imprisoned during the final days of the Ben Ali regime. "The revolution has only just started."

The job of interim officials is all the harder because Mr Ben Ali crushed public confidence in state institutions. Courts are compromised, the opposition enfeebled. Tunisia's main trade union, the UGTT, did much to encourage opposition groups across the country, but its leaders are blemished by contacts with the former regime.

In this shapeless landscape, Tunisians struggle to voice their political differences. Avenue Bourguiba, the main thoroughfare in Tunis, is now an all-day debating forum. At the ministry of higher education, where officials try to mollify petitioners, Tahar Labassi, a linguistics professor drafted in to serve as chief of cabinet, thinks the state may cease to function. "We don't have time to run the ministry," he laments.

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Tensions in Morocco

A firm royal hand

Feb 24th 2011 | *CAIRO* | from the print edition

The protest movement is damped down by the palace, as usual



No demagogues, please

AMID the wave of uprisings, Morocco claims to be the first country to be taking the shock in its stride. Tens of thousands protested on February 20th in various cities, but rarely clashed with the police, who had been ordered to give the protesters a wide berth. Some rioting did take place, especially in the north of the country, where five people died at a bank that was set on fire-a reminder of the social tensions that simmer in Morocco's slums. But trouble was limited and slight.

The government says this is evidence of a freer environment for dissent than in the rest of the region. But it is not, for now, addressing the protesters' main demands-notably a call to turn the kingdom into a constitutional monarchy, as in Britain or Spain. Nor is it obvious that further unrest will be tolerated.

King Muhammad VI ignored the protests as they grew. On February 21st he announced the creation of a new Social and Economic Council tasked with carrying out reforms; but he also said that he would not "give in to demagoguery". Instead, he hoped for "total synergy between ourselves and...our faithful people". The message was that Morocco would pursue reform at its own pace, unperturbed by demands from the street.



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This sort of leading-from-the top, many complain, drains the energy and purpose out of party politics. Many protesters on February 20th carried posters attacking two figures close to the king: Fouad Ali al-Himma, a political fixer who has founded a pro-monarchy party that has heavily recruited from other parties; and Mounir Majidi, the king's private secretary, who oversees royal business interests. Together, these two men embody the palace domination of politics and the economy.

The king's defenders argue that he must lead because the parties have failed to do so. But this is mostly because of the palace's parallel politicking. Old rifts in two of the biggest opposition forces, the socialist USFP and Islamist PJD, split open when their leaders decided to boycott the February 20th movement. If they take no part, a leaderless protest movement may fizzle out-but could also become more unpredictable.

The nervous Gulf

Bullets and bribes

Feb 24th 2011 | *MANAMA* | from the print edition

Saudi Arabia urges Bahrain to keep protesters at bay

AFTER the most explosive week in its recent history, with seven dead and hundreds injured when troops opened fire on protesters, an uneasy truce is holding in Bahrain. Protesters have reoccupied Pearl Square in the capital, Manama, after the crown prince, Salman bin Hamad al-Khalifa, ordered the troops off the streets. The site now houses a sprawling camp of several thousand, with free-food stands and a barber doing a busy trade. From a small stage, a steady queue of speakers call for the downfall of the regime. A new youth movement, astonished at the speed and size of the protests it organised over social-networking sites, is finding its voice.

The crown prince has now called for dialogue. His father, King Hamad, has announced the release of 23 political prisoners, including Ali Abdulemam, a blogger prominent in the youth movement, which the opposition parties had demanded before they would talk. This concession may not be enough. In the past Bahrain's opposition groups have demanded a democratic constitutional monarchy, knowing that the king is supported strongly by other Gulf rulers. Now, however, three groups have called for revolution, saying the rulers cannot be trusted and dialogue is a trick. Meanwhile, the government is rallying its own noisy supporters.



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The youth movement takes pride in having no leaders, but it thereby finds itself without a voice at the negotiating table. The main opposition groups would like to harness the movement's energy, yet keep it at arm's length. Instead a committee is forming to represent those encamped in the city centre. "It is delicate. Many feel we should not be negotiating at all with people who killed us," said Mohammed al-Maskati, the 24-year-old head of the Bahrain Youth Society for Human Rights.

Much will depend on whether the crown prince can implement real reforms. Ten years ago Bahrain forswore torture and set up a parliament, albeit with few powers. It was praised for this by Britain and America, but reforms have since stalled. Proper steps towards democracy will annoy some of the prince's own relatives, who hold most of the high cabinet posts and much of the country's wealth.

The government is also caught between its Western allies, who want to see democratic progress, and its Gulf neighbours, who urge caution. Saudi Arabia, with the largest population and the biggest unemployment problem, is especially troubled. Saudi pressure probably helps explain the sudden escalation of force in Bahrain last week. Indeed, the Saudi foreign minister, with four Gulf counterparts, visited Bahrain last Thursday to support its government. They warned against "foreign meddling", usually code for Iranian interference; most of Bahrain's protesters were Shia, but there is no evidence that they were helped by Iran. On February 23rd Bahrain's king jetted off to Saudi Arabia for further talks about the unrest.

In Saudi Arabia itself, last week, seven men were thrown in jail for establishing a political party. This week King Abdullah, who is 86, returned to the country after lengthy medical treatment overseas. He offered $37 billion in new public spending to stave off unrest. Civil servants will get a pay rise; unemployed students will get grants; more housing is

to be built. But as Shibley Telhami, a Middle East specialist at the Brookings Institution, has observed, Arab protesters are seeking dignity, not just bread. Saudis have been offered no more say in the way they are governed.

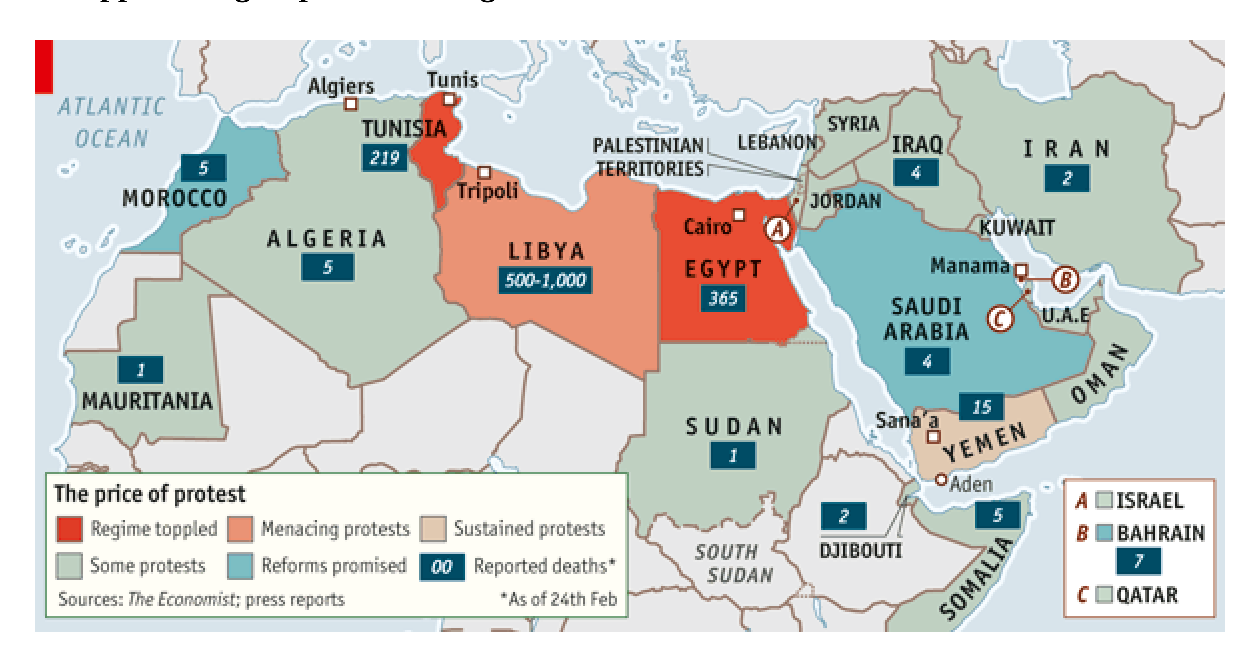
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Protests in Yemen

Getting together

Feb 24th 2011 | *SANA'A* | from the print edition

At last, disparate opposition groups are starting to combine



IF YOU ignore the burned-out and smashed-up cars, the anti-government demonstration at Yemen's Sana'a University looks much like a summer music festival, with its fluorescent tents and juice stalls decked with artificial flowers. But it is the most worrying scene Ali Abdullah Saleh has faced in his 32 years in power.

Yemen's president has many enemies, but they have always been a fragmented bunch. Now they seem to be getting organised. Until a few days ago the demonstrations in Sana'a were short, scrappy affairs that quickly deteriorated into stone-throwing and fighting with pro-government thugs. Now the demonstrators have set up camp and say they are staying put.

On the evening of February 22nd shots were fired at their camp, leaving two dead and more than ten injured. Dissent is mushrooming around the capital and continuing in many cities around the country. Some of the bloodiest demonstrations are in the southern city of Aden, where a separatist movement has long demanded secession from the north. The separatists are now said to be dropping their demands for independence and calling for Mr Saleh to step down. The arrest of a prominent separatist leader, Hassan Baoum, on February 20th suggests that the regime is rattled by the possibility of the southerners throwing in their lot with the pro-democracy demonstrators. It will also be worried by anti-government demonstrations on February 21st in Sa'ada Governorate, where Mr Saleh has waged an on-off war against the Shia Houthis for years.



Explore our

At the moment the parliamentary opposition parties are divided and indecisive. Requests for talks with the ruling party have been accepted and then rejected a number of times in recent weeks. The different factions within the opposition coalition cannot agree on their demands. But individual members have joined the protests at the university.

Looking tired but defiant at a press conference on February 21st, Mr Saleh insisted that he will see out his term, which ends in 2013. He can be confident of the loyalty of the top brass in the army and security forces, not least because they come, like him, from the Sanhan tribe. But discontent is simmering lower down the ranks.

Many are still afraid to join the demonstrations, fearing that they will lead to fighting rather than free elections. Memories of Yemen's brutal civil war in 1994 are still raw. But if more shots are fired, it will be hard to stop the surge of dissent.

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Taking on the public-sector unions

Wisconsin and wider

Feb 24th 2011 | *MADISON* | from the print edition

A dispute in one cold state is having nationwide repercussions



THE state of Wisconsin considers itself something of a leader when it comes to workers' rights. It was the first state to provide unemployment benefits, the first to introduce compensation for those injured on the job and, in 1959, the first to recognise unions representing state workers. Now it is setting a very different trend. The row the state's leaders sparked off by attempting to curb the influence of public-sector unions is spreading across the country. Several other state

legislatures have taken up similar proposals. National politicians are gleefully weighing in. America is facing cutbacks at every level of government, and the melodrama unfolding in Madison, Wisconsin's small, snowbound capital, will help determine where the axe falls.

Scott Walker, the newly installed Republican governor, enraged public-sector unions earlier this month by insisting that in order to plug the state's $3.6 billion deficit he would need not only to trim civil servants' benefits, but also to strip the unions that represent them of almost all their collective-bargaining rights. Under his plan unions would not be able to haggle with the state or local governments about benefits or working conditions. Only basic pay would be up for discussion, and even that would, at most, keep pace with inflation. Real increases in salaries would be banned, unless voters decided otherwise in a referendum.

The Republican majority in the state legislature was all set to approve an emergency budget bill containing these measures when the Democratic minority in the Senate, in a last-ditch attempt to derail it, fled the city, depriving the chamber of a quorum. The governor ordered state troopers to find the fugitives and bring them back. But the 14 Democrats had escaped to a water park in neighbouring Illinois, beyond the reach of Wisconsin's authorities. They say they are willing to accept the cuts Mr Walker is proposing to workers' benefits, but cannot countenance the restrictions on collective bargaining, and will not come back until they are dropped.

If the bill does not pass by February 25th, the state will miss the opportunity to refinance some of its debt, at a cost of $165m. To induce the Democrats to return, the Senate Republicans have passed a rule obliging them to collect their paychecks in person at the capitol. Mr Walker has added to the pressure by saying that the only alternative to trimming benefits would be to start sacking people. Some 1,500 jobs would have to go by July, he says, and perhaps another 10,000-12,000 if the dispute drags on. To avert this, a Republican senator has suggested a compromise whereby collective bargaining would be suspended for two years rather than permanently scrapped. But that, says Mr Walker, would be just another short-term fix of the sort that got the state into its current mess.

The unions, meanwhile, have been mounting round-the-clock protests in Madison for almost two weeks now. A contingent has set up camp in the state capitol, creating something of a carnival atmosphere. They drum, cheer and chant slogans like "Kill the bill!" for hours on end. Inflatable mattresses and sleeping bags dot the grand marble foyers. Banners denouncing Mr Walker and his allies hang from the arches and balustrades. Outside, where crowds of as many as 60,000 have rallied against the bill, union members have set up an impromptu barbecue and are handing out free sausages. One wag dressed up as a breast and carried a sign reading "Walker is a giant boob".

Many conservatives, however, regard him as a hero. Americans for Prosperity, a right-wing taxpayer group, has set up a website called "Stand with Walker" where some 70,000 people have registered their support. The Republican Governors Association has declared the ruckus in Madison "a defining moment for our country and the conservative movement". Almost every Republican thought to be considering a run for the presidency has jumped on the bandwagon. One of them, Mitch Daniels, the governor of nearby Indiana, says, "The most powerful special interests in America today are the government unions."

Collectively, America's 50 states face some $125 billion in budget shortfalls in the coming year, according to the Centre on Budget and Policy Priorities, despite having already grappled with combined deficits of $430 billion over the past three years. Worse, states, counties, municipalities and school districts face unfunded pension liabilities of anywhere between $700 billion and $3 trillion, depending on how gloomy your actuarial assumptions are. Mr Walker and his supporters say it will be impossible to fix all this unless they do away with the need to haggle endlessly with greedy union bosses.

Public-sector unions wield undue influence, argues Steven Malanga of the Manhattan Institute, author of a book on the subject, since they help to elect the very people who set their wages. Moreover, the political benefits of coddling the unions are immediate, whereas the costs are generally deferred. He points out that even Franklin Roosevelt was uncomfortable with the idea of public-sector unions. By the same token, prominent contemporary Democrats, such as Rahm Emanuel, the newly elected mayor of Chicago (see article) and Andrew Cuomo, New York's new governor, have argued that public-sector workers must tighten their belts.

But Amy Hanauer, of Policy Matters Ohio, a left-leaning think-tank, says there is no clear correlation between the extent of collective bargaining with public-sector unions in a state and the size of its deficit. In 2010, she notes, the nine states that ban the practice altogether had budget shortfalls of 25% on average, compared to 24% in the 14 states that allow it for all public-sector employees. And in Wisconsin, after all, the unions have agreed to deep cuts.

Yet several other states are following Mr Walker's lead. The new Republican governor in Ohio, John Kasich, is backing a move to restrict collective-bargaining rights for both state and local employees, despite union protests. Tennessee's

legislature is considering a measure that would eliminate collective bargaining for teachers. Mr Daniels, in Indiana, has proposed a similar measure, although he opposes a move by the state legislature to allow employees in any unionised workplace to opt out of paying union dues, as Mr Walker also proposes, for fear it will spark a knock-down drag-out fight with the labour movement. A hullabaloo erupted anyway: Indiana's House of Representatives was about to approve a "right to work" bill when the Democratic minority mimicked their Wisconsin colleagues and fled the state.

The debate is energising activists on both the left and the right. Madison is full of union organisers, talking excitedly into mobile phones about deliveries of placards and arrivals of fresh contingents of protesters from around the country. The Democrats in the Wisconsin Senate have raised as much money in the week since they left the state as they did in the whole of the previous year. Mr Walker, in turn, has achieved national fame for taking on the public-sector unions, much as Chris Christie, the Republican governor of New Jersey, became a hero on the right for imposing budget cuts on reluctant Democrats in his state legislature. Unless matters take a nastier turn, neither side has much incentive to compromise.

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Andrew Cuomo and the unions

Meanwhile, in New York...

Feb 24th 2011 | *NEW YORK* | from the print edition

The governor's showdown is more subtle



IN 1975, when New York City teetered toward bankruptcy, Hugh Carey, then the governor of the state of New York, convinced the teachers' union to invest a significant amount of its pension funds in bail-out bonds. He also persuaded District Council 37 to shelve pay increases for its municipal workers. The unions played a crucial role in saving the city and probably the state with it. Thirty-five years later, during his gubernatorial campaign, Andrew Cuomo gave copies of "The Man Who Saved New York", an account of Mr Carey's role in the crisis, to labour leaders. Seymour Lachman, the book's co-author, reckons that, like Mr Carey, Mr Cuomo wants and needs the unions' help in surviving the current crisis.

Facing a $10 billion deficit, Mr Cuomo campaigned on pension reform, making it clear he was going to target public-sector unions and sounding more like his Republican neighbour across the Hudson, Chris Christie, than a Democrat. Mr Christie stirred up a lot of headlines when he took on the unions, most recently calling them greedy, selfish and self-interested. Mr Cuomo is less vitriolic, but no less adamant that he wants the unions to do their part. During his budget address on February 1st, in which he declared the state to be "functionally bankrupt", he called on the state's public-sector

unions to make $450m in concessions. He threatened, as a "last resort", to lay off up to 9,800 state workers to get the savings needed.

Mr Cuomo vowed to use the $4m left in his campaign chest to fight the well-financed unions, who aired commercials lambasting previous governors during earlier negotiations. So far only the teachers' union has lashed out, with a $1.1m campaign advocating higher taxes. The teachers are angry over a proposed property-tax cap, which will cut education spending at the local level. But Mr Cuomo has the backing of the Committee to Save New York, a group of business and civic leaders that includes Felix Rohatyn, who restructured the city's debt in the 1970s. The committee has raised $10m to battle the unions over salaries, pensions and benefits.

Robert Ward, of Albany's Rockefeller Institute, thinks Mr Cuomo is picking his fights cleverly. Negotiations have yet to begin, though talks are taking place behind the scenes. The governor keeps in regular contact with labour leaders. Lee Adler, who teaches collective bargaining at Cornell University, points out that despite the financial pressure the state is under Mr Cuomo does not appear to be in any great hurry (he has yet to hire a chief negotiator) perhaps because he wants to get his budget in shape before he moves on to bargaining. Union contracts run out on April 1st, though workers will be able to continue to operate under the expired contracts' terms until a new one is agreed.

The unions are watching what is happening in Wisconsin. Kathryn Wylde of the Partnership for New York City speculates that events there could make it harder for the unions to strike a deal with Mr Cuomo. "The rank and file are deeply offended by the actions of Scott Walker," she says. New York is generally pro-labour, with 24% of the state's workforce unionised. But unlike Mr Walker, pragmatic Mr Cuomo is sticking purely to finance, not ideology. And over in New Jersey, Mr Christie said in his own budget address this week that pension reform is neither a Republican nor a Democratic issue, but an issue of moral responsibility. "The day will come, mark my words," he said, "when the pensioner will retire and there will be no pension...I am worried for the police officer. I am worried for the firefighter. I am worried for the schoolteacher."

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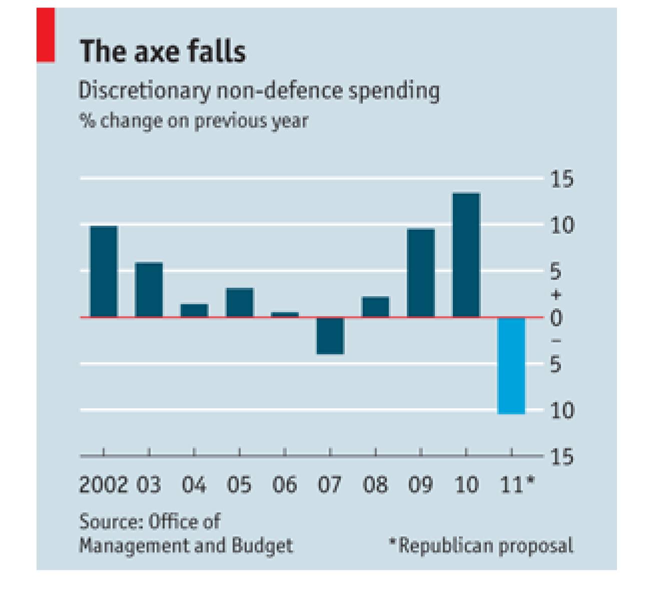
Federal budget battles

Tick, tock

Feb 24th 2011 | *WASHINGTON, DC* | from the print edition

Time is running out to avert a government shutdown

BEFORE November's election, Republican leaders in the House of Representatives solemnly promised that they would cut spending by $100 billion this year alone if voters put their party in charge. Voters did, in the House at least, and on February 19th the new Republican majority repaid the compliment by approving cuts of $100 billion in the budget Barack Obama proposed for last year (compared with the short-term "continuing" spending resolutions Congress has actually adopted, the cut is only $61 billion). The hitch is that the measure will not become law, since the Democrats who control the Senate, not to mention the president with his veto pen, are implacably opposed to it. With the continuing resolution due to expire on March 4th, there is little time to work out a compromise, and little evidence either side wants one.



The cuts the House approved are swingeing by Washington's standards. They constitute an unprecedented reduction of some 10% in non-defence discretionary spending, meaning all government programmes bar mandatory entitlement schemes and defence (see chart). Food-safety inspections, oversight of financial institutions, college scholarships for the poor, nutrition schemes for mothers and babies and other seemingly unobjectionable items would all be scaled down. Funding for pet Democratic causes, such as public broadcasting, regulating greenhouse-gas emissions and Mr Obama's health-care reforms, would be eliminated altogether. There were even some cuts to homeland security and defence-normally a sacred cow for Republicans. The party's fiscal hawks teamed up with Democrats, for example, to approve an amendment that would scrap a programme to develop a second engine for a military jet.

Tim Geithner, the secretary of the treasury, said the cuts would "damage our capacity to create jobs and expand the economy". Harry Reid, the leader of the Democrats in the Senate, complained that the Republicans were slashing "the programmes that keep us safe and keep the economy growing". Mr Obama, who proposed a mere freeze on non-security discretionary spending in his budget earlier this month, had threatened a veto of the House bill even before it was passed. Yet the Republican Study Committee, a group which counts 175 of the 241 Republicans in the House as members, had wanted to cut $22 billion more.

Despite such worrying portents, the leaders of both parties say they want to strike a deal before March 4th, to avoid a government shutdown. Moderate Republicans, in particular, seem fearful of a repeat of earlier budget battles that led to shutdowns in 1995-96, when Bill Clinton managed to paint the Republican majority in Congress as extreme and recalcitrant. Whether they can persuade their extreme and recalcitrant colleagues of the wisdom of holding back is another matter. The party's top brass, after all, had originally proposed much smaller cuts, only to be overruled by the lower ranks.

The Senate's Democrats are not making things any easier. They say that with Congress in recess this week, there will not be time to hammer out a deal before March 4th. Instead, they say, Congress should extend the government's authority to continue spending at current levels for another month or so. John Boehner, the House speaker, says he will not agree to any extension that does not entail cuts. A group of moderate senators (see article) are trying to help. But time is short, and the willingness of the Republican rank and file to compromise uncertain.

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The deficit and the Senate

The stealth deficit commission

Feb 24th 2011 | *WASHINGTON, DC* | from the print edition

A group of senators breathes life back into the Bowles-Simpson budget report

WHEN a bipartisan commission released its sweeping plan to slash America's budget deficit last December, it seemed destined for the morgue. Only 11 of the 18 commissioners voted for their own report, three short of the number needed to take the proposals to a vote in Congress. None of the three Republican members from the House of Representatives voted in favour. And Barack Obama himself, who had set up the commission, largely ignored its advice. Days later, he struck a deal with Republicans to add $858 billion to the deficit by extending some tax cuts and enacting other new ones.



Opposites attract

But the commission's report is showing faint signs of life thanks to a quiet effort by what amounts to a second, stealth deficit commission. It began last summer on the Senate floor, one of the few places left in Washington where Democratic and Republican legislators still socialise. During a lull in proceedings, Saxby Chambliss, a Georgia Republican, and Mark Warner, a Virginia Democrat (pictured, right and left), struck up a conversation about the deficit. That led to a series of meetings where a growing group of senators sought to educate themselves by inviting in experts like Ben Bernanke, the chairman of the Fed.

To limit partisanship and keep the proceedings low-key, Mr Chambliss and Mr Warner initially only invited senators who were not seeking re-election and not part of their party's leadership. When the deficit commission, led by Erskine Bowles and Alan Simpson, released its report on December 1st, however, the two Democratic and two Republican senators who supported the final report joined the group. In a series of meetings since, they have tried to figure out how to get Congress and the White House to act on its recommendations. "This was a pretty unique moment in time," says Mr Warner. "It seemed absurd to waste that effort and that moment."

The group now has an informal membership of around 30. They have yet to coalesce behind a single proposal, but are considering a bill that would instruct committees in Congress to enact the commission's major recommendations, with triggers that would cut spending automatically and eliminate tax breaks if Congress does not act within prescribed deadlines.

But the group is unsure how fast to move, how ambitious to be, or how closely to follow the commission's report which, as Mr Chambliss notes, "does not lend itself to legislative language." Many of its recommendations were not specific, or consisted of several options. It proposed capping discretionary spending, the sort that needs annual authorisation, raising Social Security taxes and limiting benefits, imposing a raft of cost controls on federal health care programmes, and eliminating tax breaks while lowering tax rates. This, it said, would reduce the deficit to 1.5% of gross domestic product by 2020, from 11% in the current fiscal year.

Daunting hurdles remain. The senators are already coming under pressure to reel in their ambitions. Anti-tax activists have accused the group's Republicans of violating a promise not to raise taxes. Leading Democrats want Social Security left out. Conceivably, the bill could leave the details to Congress and simply impose the triggers, but such triggers have a poor record of success. Moreover, as Mr Chambliss notes, no bill will get anywhere without the agreement of Mr Obama and Republican leaders in the House. The latter are still working on their plans for entitlements and the former is merely watching.

A week earlier, the president defended his own feeble budget proposals by saying big deficit-reduction ideas ought to come from Congress. If the group of senators can somehow cobble together a solid majority from both parties, the president will have the cover he needs to weigh in. At that point, House Republicans just might look obstructionist if they fail to go along.

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Rahm Emanuel wins

Chicago, 1AD

Feb 24th 2011 | *CHICAGO, ILLINOIS* | from the print edition

The city begins life after five decades of the Daley ascendancy



NEW eras tend to be declared too freely. Chicago's election of Rahm Emanuel on February 22nd, though, was a turning point. True, the mayoral race did have an air of familiarity, if only because it honoured the city's penchant for the bizarre. Mr Emanuel was almost disqualified by a legal fight over the meaning of the word "reside". Carol Moseley Braun, a black contender, called a lesser opponent a crack addict. A blizzard prompted candidates to battle over their shovelling skills. On Twitter, an impostor posing as Mr Emanuel won 36,000 followers with tweets composed almost entirely of expletives.

Nevertheless, the election really did mark the passing of an age. Richard Daley senior ruled Chicago from 1955 to 1976; his son has reigned over the city since 1989. Now a new powerbroker will take charge with no Daley in the offing. Mr Emanuel clobbered his opponents by winning 55% of the vote, well above the level needed to avoid a run-off. Mr Emanuel's effect on the city, of course, has yet to be determined. But the election itself proved just how much Chicago has changed.

The mayoral race was unlike any in recent memory, and not simply because Mr Daley was absent. Chicago's rules of racial politics have become tangled. Mr Emanuel, a Jewish former congressman and chief of staff to Barack Obama, was one of four main candidates. The Latino community, in a sign of growing prominence, produced not one but two credible contenders: Gery Chico, once Mr Daley's chief of staff, and Miguel Del Valle, the city clerk. After much debate many African-American leaders rallied behind Ms Braun. "The early assumption," says Juan Rangel, a Latino leader and supporter of Mr Emanuel, "was that the election would be all about race." But it wasn't. Mr Chico's most vocal backers were union members. Ms Braun tried and failed to incite class warfare. Mr Emanuel carried many wards with high concentrations of black voters.

Meanwhile the notorious Chicago machine is not what it was. Mr Daley's machine was different from that of his father. His power base included Latinos and executives at global firms, for example. But in recent years the machine had grown rusty. Federal investigations disrupted Chicago's system of rewarding political workers with city jobs and promotions. Mr Daley's underlings were convicted in 2006 and 2009, but the boss himself was not implicated. The old armies of patronage, says Dick Simpson of the University of Illinois at Chicago, have shrivelled.

Mr Emanuel is hardly an outsider to Chicago's establishment. He courted local leaders such as Mr Rangel assiduously. But his tactics were less old Chicago than new Washington. He followed the requirements of any modern campaign: raise cash and deliver a clear message. By January Mr Emanuel had raised $11.8m, compared with $2.4m for Mr Chico. In the old days a patronage army might have fanned out across an important neighbourhood. Mr Emanuel's money let him accost voters through their television sets. He also campaigned diligently, visiting more than 100 train stops to greet befuddled commuters. He stuck to his message (strong schools, safe streets, stable finances) and kept his volcanic temper in check.

Winning the election, however, was the easy part. Mr Emanuel is more accustomed to being an aide than the chief. On May 16th he will become the executive of America's third-biggest city. A fiscal mess awaits him. Mr Daley closed recent budget gaps by using cash from asset sales. Mr Emanuel could not repeat this trick even if he wanted to. A brawl with local unions, who opposed him in the election, seems certain and he may also struggle with the city council. These challenges are formidable. Mr Emanuel's temper is sure to erupt. But if he can survive the next few years, he could be mayor for 20 more.

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Drug courts

Stay out of jail clean

Feb 24th 2011 | *GAINESVILLE, HALL COUNTY, GEORGIA* | from the print edition

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The best way to keep drug offenders from returning to prison



Keep it zipped

ONE was an intravenous drug user who had slept outdoors on a trampoline. Another was a wife and mother who started drinking at 14 and turned to meth at 49. A third was a college graduate and licensed pilot who left home for months on end. All are felons. Along with five others, at a graduation ceremony in the sanctuary of a Baptist church in north Georgia recently, all received praise and a hug from Judge Jason Deal and handshakes from both prosecution and defence lawyers.

They are among the 358 people who have "graduated" from the drug court in Hall County-one of 28 such courts across the state and roughly 2,500 around the country. Courts differ in whom they accept. Hall County's participants cannot have more than one felony conviction, while most participants in Fulton County's (Atlanta) drug court have committed a number. But they operate similarly.

Participants undergo intensive treatment instead of prison. Judges receive special training. Rather than simply resolving a case and sentencing the offender, they preside over teams that include prosecutors and defence lawyers, police, treatment and job-training counsellors and case workers. Participants are drug-tested often, and appear regularly before a judge, who sanctions or rewards them for their behaviour. Rewards include praise and small tokens such as sweets and gift tokens. Sanctions can range from chastisement to a brief stay in jail. They can also be more creative: a judge in Forsyth County's juvenile court gave a teenager caught in bed with his girlfriend a week's care of an electronic baby doll that had to be rocked, fed and changed.

All of this may sound paternalistic, but it works. A statewide study in Georgia found the two-year recidivism rate among drug-court participants was 7%, compared with 15% for those on probation alone and 29% for drug-users who served time in state prison. A number of similar studies conducted in drug courts around the country show similar results. Hall County's recidivism rate is 4.7%, and nearly 98% of its scheme's participants are employed. Jail keeps addicts off the street, but does little more than that. Drug courts, by contrast, focus on teaching addicts how to stay clean, and how to do things others take for granted: get up every morning, show up to work on time every day, pay their bills. Prison has a punitive as well as a rehabilitative aspect, and some have been cool to drug courts for that reason, seeing them as coddling criminals. But criminals will eventually return to society. Better they return well-adjusted rather than hardened and still addicted.

In any event, such schemes not only help the participant, but save money. In Georgia a drug-court sentence costs over $10,000 less than a prison sentence-no small number in a state that operates the fifth-largest prison system in the country, spending one in every 17 of its budgetary dollars on incarceration and parole. A national study by the Urban Institute, a think-tank, found that drug courts produce $2.21 in benefits (reduced crime and costs of incarceration) for every $1 spent; expanding their reach to cover all arrestees would raise the level of benefits to $3.36.

For this reason drug courts are winning plaudits across the political spectrum. Barack Obama mentioned them favourably in a recent interview, citing them as part of a growing range of efforts to treat drugs "as a public health problem". And when Nathan Deal was inaugurated last month as Georgia's new governor, he praised them for their efficacy and cost-effectiveness. In fact, he was sworn in by a drug-court judge: his son Jason, from Hall County.

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Abortion in Texas

Signs of pro-life

Feb 24th 2011 | *AUSTIN* | from the print edition

The Republican surge has revived abortion fights in state legislatures

LAST November, Republicans picked up dozens of seats in the Texas legislature, their majority in the House of Representatives there leaping from two out of 150 to 52. So this year's agenda is crowded with conservative concerns that might seem marginal in light of the state's whopping budget deficit. One bill, for instance, would allow people to carry concealed weapons on college campuses. Perhaps the most controversial, though, is a measure that would require women seeking an abortion to have an ultrasound scan and, in most cases, hear a detailed description of the foetus's development. Rick Perry, the governor, called the bill a priority in his "state of the state" speech this month. It duly sailed through the Senate and is expected to have an equally easy time in the House.

Reducing the number of abortions is a worthy goal. But Texas has some of the worst health statistics in the country, and its teenage pregnancy rate is among the highest. The new approach, critics say, will not give women more information,

only more hassle. Planned Parenthood, a pro-choice group that provides health care to women, points out that ultrasounds are already part of standard care before a termination.

Texas is not alone in seeing a legislative surge from social conservatives. A number of states will consider measures that would limit access to abortion and contraception, by requiring parental notification when minors seek such services. Others are mulling over proposals to stipulate that abortion cannot be covered by private insurers in the forthcoming health-care exchanges. Some ideas are clearly extreme. A South Dakota bill would have classed it as "justifiable" to kill someone in order to defend an unborn child. That looked like an attempt to legalise the murder of the few doctors who provide abortions there, and the bill was shelved after heavy criticism. Other efforts seem counterproductive. Last week in Washington, DC, the House of Representatives voted to remove federal funding from Planned Parenthood.

This uptick in social conservatism is notable after the relative lull of the past few years. The economy dominated the 2008 campaign, and more recently, the "tea-party" movement has been more vocal on fiscal questions than on social issues like abortion. So will the sudden interest in abortion persist at next year's elections? Last week Mike Huckabee, a former governor of Arkansas and a possible contender for the 2012 Republican nomination, said that abortion "transcends" all other political issues. So far, though, most of the other likely presidential candidates have been preoccupied by jobs and the economy.

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Lexington

How to close Guantánamo

Feb 24th 2011 | from the print edition

Maybe that has become the wrong question for Barack Obama



"I DON'T want to be ambiguous about this. We are going to close Guantanamo." So said Barack Obama in January 2009, giving himself a year to do it. It is now February 2011 and the prison camp remains open. And though the White House continues to insist that it is serious, deadly serious, about closing it eventually, Leon Panetta, the director of the CIA, told the Senate this month that in the event of America capturing Osama bin Laden he would probably be taken-guess where-to Guantanamo.

Closing Guantanamo was going to be one of the big things Mr Obama would do to set America on a new path in relations with the Muslim world. The place had become a symbol of everything that seemed so wrong with George Bush's war on

terrorism. Beyond the jarring spectacle of blindfolded men in orange suits and manacles, the whole idea of locking people up indefinitely without trial looked un-American, a perversion of the values of a nation ruled by law. The president has reduced the number of inmates to fewer than 200. Even so, the fact that it is still open counts as a black mark against him and a continuing blemish on the global reputation of the United States.

But here's a question. Should it still be a blemish? Not necessarily, in the politically incorrect view of Benjamin Wittes, a senior fellow at the generally liberal Brookings Institution in Washington, DC, who has started to argue (most recently in a book, "Detention and Denial") that since Mr Obama seems unable or unwilling to close Guantanamo, he should have the courage to try something new. He should keep it open, but make it into a model of how democracies ought to handle suspected terrorists.

Before delving into Mr Wittes's reasoning, it helps to understand where he is coming from-or where he is not coming from. Plenty of Americans think Guantanamo is a necessary evil, and some consider it a perfectly good thing. In the first camp put Donald Rumsfeld. The former defence secretary says in his memoirs that he considered Guantanamo the "least worst" solution to the problem of what to do with the people captured in the war on terror. Far from Afghanistan and easy to guard, it would not complicate relations with a host nation, since American relations with Cuba were already lousy. Though damned across the spectrum, the camp offered a solution to the problem of keeping dangerous detainees out of circulation. "What was the alternative-letting them go and then hoping to catch them as they were committing their next terrorist attack against the American people?"

In the second camp put Senator John Cornyn of Texas, one of many who say that one of the most splendid things about Guantanamo is the very feature liberal opinion hates: that keeping detainees there prevents them from gaining the legal rights they would enjoy on American soil. An outcry greeted 2009's administration proposal to move some of the alleged 9/11 plotters, such as Khalid Sheikh Mohammed, to the mainland for a criminal trial. Might bringing such dangerous men to America be a danger in itself, providing a new opportunity for terrorism? Besides, why go to all the trouble of a criminal trial and give such men a pulpit from which to spout their hateful ideology?

What makes Mr Wittes's defence of Guantanamo interesting is that he is in neither the Rumsfeld nor the Cornyn camp. He argued until recently in favour of closing Guantanamo. But he has at last lost faith in this happening any time soon. To be sure, Mr Obama has many excuses for failing to keep his promise. Hardest is the puzzle of what to do with the remaining inmates, a question that became more complicated in December when Congress passed legislation barring the use of Defence Department money to transfer any of them to the mainland. But the point remains: here is a president who continues to espouse a policy he seems unable or unwilling to implement for the time being.

Well, if Mr Obama is not really going to close Guantanamo, Mr Wittes says, he should stop pretending he is. He should also face the fact that Guantanamo has improved. The prisoners there have access to lawyers, and the federal courts oversee *habeas corpus* cases. Such cases are followed closely by journalists, hundreds of whom have visited Guantanamo. There have been no serious allegations of abuse for a long time. Naturally, the regime of detainee rules and rights could be improved. But so long as the big fight is between the closers and the keep-it-openers, America fails to address the really vital question of what rules it should observe when-and wherever-suspected terrorists are held.

Concentrate on making it better

So here is his proposal. Mr Wittes would like Mr Obama to say that since Congress has made closure impossible, he will work to make Guantanamo "a symbol not of excess, not of lawlessness and evasion of judicial review, but of detention under the rule of law". In addition, he should commit himself to bringing to Guantanamo all the counter-terrorism detainees America captures anywhere in the world whom it means to hold in military detention for a protracted period, thus ensuring that they benefit from the legal standards established at Guantanamo

Needless to say, this argument has fallen flat with civil-libertarians. Most say that the government should either put prisoners on trial or let them go (except for those seized on the battlefield, who could be held under the normal rules of war until the conflict ended). This is principled and neat-and the position this paper has taken. The problem is that, like Mr Bush, Mr Obama seems to have concluded that some of the people in Guantanamo cannot be convicted in a criminal court but are nonetheless too dangerous to free, maybe ever. If Mr Obama does think that, closing the place would be a symbol, but a hollow one if America simply creates a less transparent Guantanamo somewhere else. Better, perhaps, to get the present one right.

Economist.com/blogs/lexington

Venezuela's economy

Oil leak

Feb 24th 2011 | *CARACAS* | from the print edition

Could one of the world's top petroleum producers really go bankrupt?



EVER since Greece plunged into a sovereign-debt crisis in 2009, investors have focused on which European country might be next. According to Capital Economics, a research firm in London, however, the next trouble spot could be Venezuela. "There is a growing risk that the government will default on its obligations in 2012," its analysts wrote on February 17th. Some in the markets have taken fright, too: the country's credit-default swaps imply a 50% chance of default by 2015. That may be overblown. Even so, Hugo Chavez, Venezuela's leftist president, seems to be pulling off a dubious achievement by causing the bond markets to fear for the solvency of the world's eighth-largest oil producer.

The chief cause of Venezuela's travails has been Mr Chavez's pillaging of PDVSA, the state oil firm. He has packed it with loyalists, starved it of investment and used it for social spending, cutting its output from 3.3m barrels per day (b/d) in 1998 to around 2.25m b/d, according to industry estimates. Of that, some 1m b/d is sold at subsidised prices at home or to regional allies, leaving just 1.25m b/d for full-price exports.

Meanwhile, the president's hostility to business has devastated the rest of the economy. He has nationalised hundreds of companies and trumped up charges against their owners, causing much of Venezuela's private sector to shut up shop and flee. As a result, the country has seen vast capital flight, and must import many goods that it used to produce. Non-oil exports have ground to a halt: petroleum now accounts for 92% of its dollar intake.

A misguided currency policy has exacerbated the malaise. In 2005 Mr Chavez pegged the bolivar at 2.15 to the dollar. However, he also tolerated a legal parallel market that kept the country supplied with hard currency at a higher rate (providing countless opportunities for arbitrage).

Last year he closed that market and created a new state body, which provides just over half the dollars that the old system did, at a price of 5.3 bolivares. Venezuela also reinforced its ban on black-market trading, making it punishable by up to seven years in jail. (Merely publishing the unofficial dollar price, now around 8-10 bolivares, has long been illegal.) As a result, foreign exchange is now scarce. Venezuelans have begun asking friends abroad to send them necessities like nappies, sanitary towels and baby milk.

The government has tried to compensate for these woes by raiding one of its piggy banks-this year it has grabbed all but $3m of the $832m in a rainy-day fund set up to even out oil-price fluctuations-and by leaning on its workers. Public employees have staged frequent protests over unpaid salaries, worsening conditions and a virtual freeze on collective bargaining.

But Mr Chavez's main short-term solution has been borrowing. Since 2008 China has lent Venezuela $12 billion and is being repaid in oil shipments, cutting PDVSA's annual revenues by a further 20%. The government's opaque accounting makes it impossible to know how it has used the money. Net public debt rose from 14% of GDP in 2008 to 29% last year, and the Economist Intelligence Unit, our sister company, expects it to reach 35% in 2011. The country cannot continue borrowing at today's rates: PDVSA's latest dollar-denominated bonds pay a 12.75% coupon.

Yet even though things look bad now, a default probably does not loom in the near future. If oil stays at $100 a barrel, the Capital Economics report calculates, Venezuela's export revenues should just cover its foreign-exchange requirements-$11 billion of debt service, $28 billion of capital flight, and $100 billion of imports-over the next two years. And even if petroleum prices drop, the central bank has $22.5 billion in cash and gold, and another $7.5 billion in further unspecified illiquid assets.

Moreover, since 2005 the government has squirrelled away $39 billion in a separate, unaudited fund called Fonden. Although analysts do not know how much of this has been spent, some part has probably been saved. There are rumours that the president is hoarding hard currency to prepare for 2012, when he faces a difficult re-election battle that will cost him money. The recent spike in oil prices caused by unrest in the Middle East will surely give Mr Chavez some extra breathing room. And at a pinch, he could probably turn to his friends in Beijing for a new loan.

Nonetheless, that sovereign default is even being mentioned in the same breath as a big oil producer in a fast-growing region says something about Mr Chavez's economic stewardship. Even if he makes it past 2012, he will eventually either have to change his policies or deny bondholders what they are owed.

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North American integration

To each his own

Feb 24th 2011 | *MEXICO CITY AND OTTAWA* | from the print edition

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The push for deeper ties peters out

WHEN Canada, Mexico and the United States implemented the North American Free-Trade Agreement (NAFTA) in 1994, it was hailed as a promising first step towards the deeper integration of the continent. Six years later Vicente Fox, then Mexico's president, called for a customs union, a common external tariff and free labour flows. And in 2005 the leaders of the three countries began a series of annual summits to push an ambitious "security and prosperity" agenda.

Since then the drive for integration has ground to a halt. The "three amigos", as their leaders were once dubbed, could not find time to meet last year, and the session scheduled for February 26th has been cancelled. When Barack Obama and Stephen Harper, Canada's prime minister, announced on February 4th that they were exploring ways to harmonise regulations and co-ordinate security-plans that had previously been discussed trilaterally-they did not mention Mexico.

A North American version of the European Union was always a long shot. Having one giant dealing with two relative dwarves is unlikely to produce a deal acceptable to all parties. Moreover, North America lacked the historical impetus of the second world war, which gave European integration a sense of purpose.

Nonetheless, even the modest goals set in the years following NAFTA's passage have been blocked. One big reason is the September 11th attacks, which led the United States to redouble its border enforcement. Whereas in the 1990s Americans discussed eliminating border controls with Canada, earlier this month the United States Government Accountability Office reported that less than 1% of the country's northern border had an "acceptable level of security". To the south, Mexico's

raging drug war and stream of migrants make the prospect of relaxing controls there politically unthinkable. Mr Obama has struggled to fight off new restrictions, like Arizona's harsh state law on immigration.

America's lengthy recession also diminished the appeal of further trade liberalisation. NAFTA has always had its doubters in the Democratic Party, including Mr Obama when he was competing for its nomination. As a candidate, Mr Obama vowed to renegotiate the deal. Although he has not honoured that pledge-much to the relief of Mexico and Canada-the United States did cancel a programme allowing Mexican lorry drivers to work in America in 2009, in violation of its NAFTA obligations. Mexico retaliated with a series of tariffs aimed at the states of legislators who opposed the programme.

America is not the only country to blame. Because Mr Harper runs a minority government that could fall at any time, he has chiefly focused on short-term, voter-pleasing issues like cracking down on illegal immigration. Canada imposed new visa restrictions on Mexican visitors in 2009, angering the Mexican government.

And whereas Canadian companies once strongly backed regional integration, their focus has now shifted to Asia, turning their North American agenda almost entirely towards the United States. Mr Harper has followed suit: although he has talked of a hemispheric foreign policy and signed free-trade deals with Colombia, Panama and Peru, he is now working on aligning Canadian and American security measures and regulations.

Felipe Calderon, Mexico's president, has espoused a vision of North America as a union of complementary economies-with Canada providing the natural resources and Mexico the labour-that would compete with Asia. However, his efforts to liberalise Mexico's economy, including a plan to allow private investment in energy, have been defeated or watered down in Congress. It is hard to see how he can achieve continent-wide reforms.

The main obstacle to trilateral co-operation is that Canada and Mexico are much more interested in their relations with the United States than they are in each other. Until that changes, the next North American summit will probably prove just as difficult to schedule.

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Monarch butterflies in Mexico

Kings of the sky

Feb 24th 2011 | *PIEDRA HERRADA* | from the print edition

The cautious comeback of an intrepid insect



A lepidopterologist's fantasy

LIKE many a sun-seeking tourist, the monarch butterfly prefers to spend winter in the warmth of Mexico. Before the first frosts, it leaves its breeding grounds in Canada and the United States and flies up to 5,000km (3,000 miles) to a patch of forest west of Mexico City. Weighing down tree branches in giant clusters by night, the monarchs flutter through the forest in their millions in the day, turning the sky amber.

This natural wonder faces two threats. In the butterflies' northern feeding and breeding sites, unpredictable weather is hindering reproduction. A cold summer in Canada and the United States in 2009 meant that the following winter saw fewer monarchs in Mexico than at any time since records began in 1994. Deforestation in the butterflies' Mexican base, mainly through illegal logging, has made their winter holidaying harder still.

Yet the insect battles on. This winter the butterflies colonised four hectares (ten acres) of Mexican forest, more than double the amount last year. This is still on the low side (1997, the busiest year on record, saw 18 hectares occupied), but Omar Vidal, head of the Mexican office of WWF, an environmental advocacy group, says the news is encouraging.

Illegal logging has almost been eradicated, thanks to the fostering of alternative jobs such as mushroom-growing and tourism, which attracts some 115,000 visitors per year. "People in this region are hard-working...they only need an honourable source of work to bring bread back home," says Rosendo Caro, director of the butterfly reserve, now a UNESCO world heritage site. Last year less than two hectares of forest were lost to illicit felling, down from 461 in 2006.

Jobs in tourism have been put at risk by a surge in drug-related violence in the state of Michoacan, which caused the number of visitors to fall by almost half this winter. As well as winning back those butterfly-spotters, Mr Caro wants to attract more visitors in the summer, when the monarchs are away and local restaurants and petrol stations see little custom. For once, a stampede of tourists may be just what is needed to preserve a natural marvel.

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The surge in Afghanistan

More please, sir

Feb 24th 2011 | *MARJA* | from the print edition

Wads of cash and boots on the ground are keeping a critical district safe. But for how long?



HAD Patrick Lavoie strolled down the main bazaar in Marja a year ago, locals would have greeted him with sniper fire and roadside bombs. Today the American marine captain only has to step out of his base to be overwhelmed by turbaned men anxious to be his best friend.

All along the main road they try to catch his eye and beg him for money to spruce up their shops. As part of his campaign to smarten up the market, which is not especially shabby, Mr Lavoie is happy to oblige. But they must follow his rules, including putting up signs above their shop. Many are in dodgy English, in a town where few can even read Pushtu. One ten-minute conversation with some vegetable-sellers ends with Mr Lavoie agreeing to give them over $8,000 to fix up their stalls. "I'm like Santa Claus!" he says.

With their programme of small grants, goodies such as a surfaced road and street lighting, and a policy of putting many of the district's "fighting-age" males on the payroll of a rash of new defence militias, the marines are spending $500,000 every ten days in a poor rural community of 250,000. The people have known only predatory government or Taliban rule.



It is the sort of splurge that horrifies development experts. They say it distorts the local economy and undermines longstanding if less lavish efforts to create a workable local government. Meanwhile, cynics who have seen this kind of thing before repeat the old saw that you can rent an Afghan, but you can't buy him.

Yet nothing seems to get in the way of America's big-money, industrial-strength counterinsurgency effort under way in Marja. The district, in a farm belt in the south-central province of Helmand, has become a test for the United States since President Barack Obama's approval of a troop "surge" in Afghanistan. A year ago, when the launch of Operation Moshtarak marked the start of a new strategy against the Taliban, American generals ramped up expectations of a swift victory in Marja, followed by the installation of a "government in a box". Neither happened. Stanley McChrystal, then the commander of American forces in Afghanistan, soon fretted that the place had become his "bleeding ulcer".

Marines insist things are looking up at last. A senior officer claims that Marja is now "safer than Detroit". The new, go-ahead district governor says he can drive all the way back to his family home in the provincial capital of Lashkar Gah in an unarmoured car. In another encouraging sign, 1,100 residents turned up to register for a district council election of sorts which a British provincial-reconstruction team is promoting.

However, these gains have come during the Taliban's usual winter lull. Even then, security is still dicey around the edges of the district, where skirmishes frequently erupt. Where the marine presence is new, the governor still needs one of their massively armoured vehicles.

The numbers of troops and police in this once-ignored, poppy-growing patch of Helmand explains Marja's transformation. In the main zone, roughly twice the size of Manhattan, 2,000 marines are backed up by 700 Afghan soldiers and 300 regular police. Even more crucial, says Lieut-Colonel Dave Hudspeth, leading one of the two marine battalions in the district, is a militia programme, called "Interim Security for Critical Infrastructure", or ISCI in the conquerors' acronym-rich jargon.

Under the scheme, copied from the "awakening" councils set up in Iraq, the local bigwigs from each of Marja's neat rectangular blocks of agricultural land raise a team of ISCI fighters of up to 50 men. These are expected to keep insurgents at bay. The tribes and families who put up the teams get $150 a man, plus a "start-up fund" of $5,000. In this way the marines have been handing out huge bundles of cash most days. The money is presumably empowering roguish characters as well as good ones, and setting some tribes against others. But Mr Hudspeth says locals running the ISCIs have the huge advantage over the marines of easily being able to detect Taliban outsiders. He also says the ISCIs are crucial for the goal of having one Afghan or American security force member for every 22 civilians in Marja-a ratio endowed with magical significance in counterinsurgency doctrine.

The question is how sustainable all this is, and how stabilising. The speed of recruitment-500 young men in a single month-means that, with 800 militia men in total, Marja's ISCIs are already bigger than the local police force. And Mr Hudspeth wants to see the numbers rise to as much as 1,600.

Already some of the ISCIs have been acting up; gun battles between militias and police have led to deaths. The government of Hamid Karzai is uneasy about establishing such big, informal defence forces. Politicians in Kabul, the capital, fear that they may one day slip out of state control and descend into warlordism.

At the moment, ISCI recruitment has been suspended. But the militias will certainly become the target of angry Taliban once their "fighting season" begins in the spring. Local rumours have it that mullahs in Quetta in Pakistan, where Taliban leaders are based, have called for *jihad* against the Marja militias.

More worryingly, in recent weeks insurgents have mounted attacks around the country designed to hammer Afghanistan's embryonic security services, with scant regard for the civilian deaths that result. On February 21st some 30 people were killed in Kunduz, northern Afghanistan, as they queued up outside government offices. Days earlier a horrific attack on a bank in Jalalabad, in the eastern part of the country, killed 38.

With such threats on the horizon, and with the district sustained by vast infusions of American cash, Marja's gains remain fragile. "It's a house of cards," says Ryan Grist, one of the British "stabilisation advisers" in Marja. "If the marines go, it could all collapse."

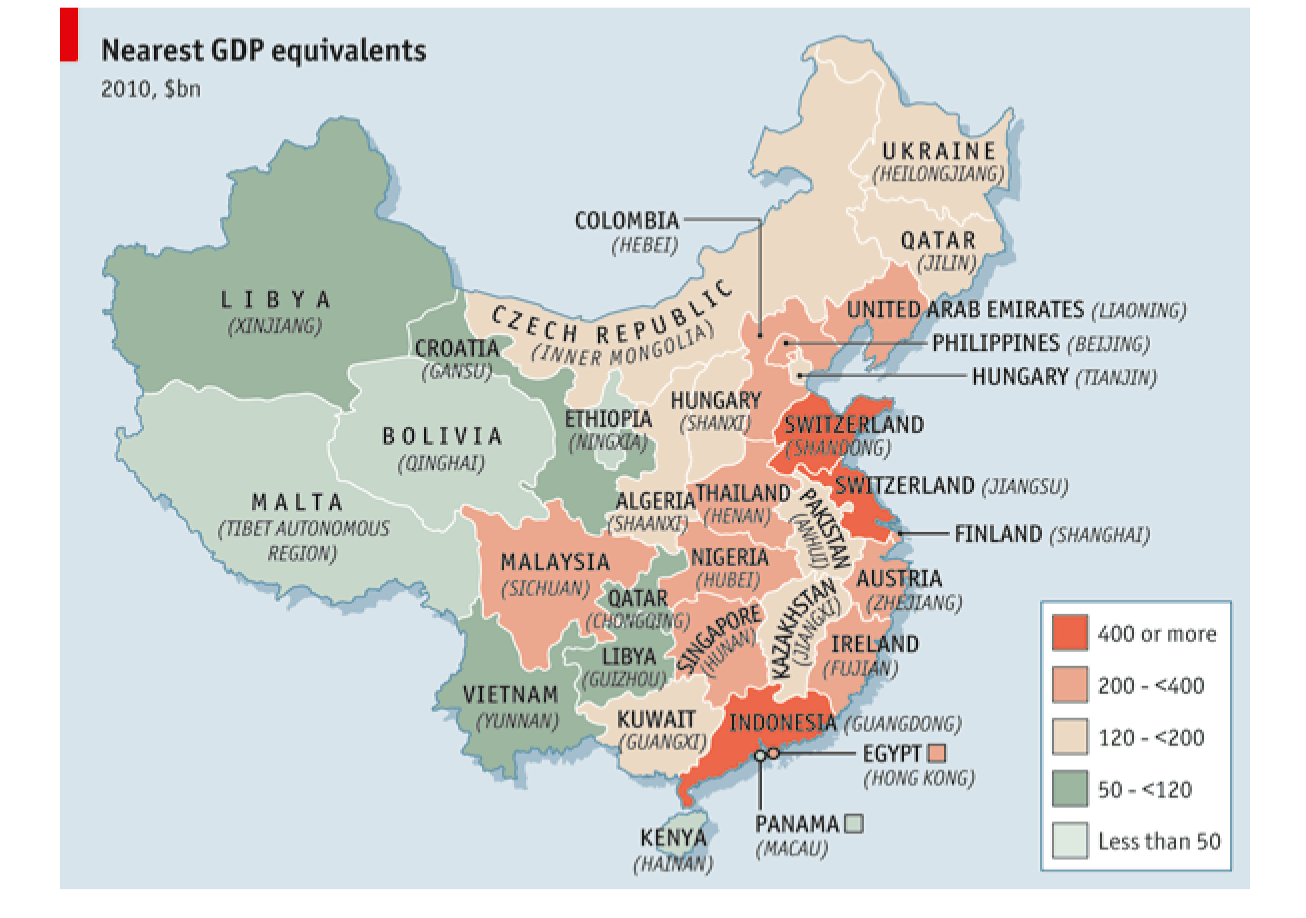
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Comparing Chinese provinces with countries

All the parities in China

Feb 24th 2011 | from the print edition

Which countries match the GDP, population and exports of Chinese provinces?



CHINA is now the world's second-biggest economy, but some of its provinces by themselves would rank fairly high in the global league. Our map shows the nearest equivalent country. For example, Guangdong's GDP (at market exchange rates) is almost as big as Indonesia's; the output of both Jiangsu and Shandong exceeds Switzerland's. Some provinces may exaggerate their output: the sum of reported GDPs is a tenth higher than the national total. But over time the national total has consistently been revised up, suggesting that any overstatement is modest.

What about other economic yardsticks? Guangdong exports abroad as much as South Korea, Jiangsu as much as Taiwan. Shanghai's GDP per person is as high as Saudi Arabia's (at purchasing-power parity, or PPP), though still well below that in China's special regions of Hong Kong and Macau. At the other extreme, poor Guizhou has an income per head close to that of India. Note that these figures use the same PPP conversion rate for the whole of China, yet prices are likely to be lower in poorer provinces than they are in richer ones, thus slightly reducing regional inequality.

The interactive version of this map includes equivalents for GDP per person, population and exports.

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Thailand's yellow shirts

Eat, talk, pray, revolt

Feb 24th 2011 | *BANGKOK* | from the print edition

A political movement desperately tries to stay relevant

THE elegant avenues surrounding the prime minister's offices in the capital are the scene of the latest confrontation between the government and the country's seasoned street-fighting men, women and children. This time it is the turn of the ultranationalist yellow shirts, the People's Alliance for Democracy (PAD), rather than their rivals, the left-wing red shirts.

The protest camp which has sprung up over the past few weeks chokes off traffic access to both the national assembly building and the offices of the prime minister, Abhisit Vejjajiva. Beneath awnings, hundreds of tents line the pavements in neat rows. There are kitchens, and stalls selling trinkets of such revolutionary role models as Muammar Qaddafi. Buddhist monks mill around. "Long live the King!", the stickers on musicians' guitar cases proclaim. In the yellow-shirt camp, they do not mean Elvis.

Yet the camp's existence speaks more of the yellow shirts' growing desperation than of their power. The movement has had a phenomenal run over the past few years, helping topple two elected governments, starting with that of a billionaire populist, Thaksin Shinawatra, in 2006. But in recent months they have become divorced from their natural ally, the Democrat Party of Mr Abhisit, and they have suffered splits and a dip in popular support. As much as anything, the protest camp is a cry for attention.

The immediate reason for the sit-in is the recent flare-up of a border dispute with Cambodia involving an ancient Khmer temple, Preah Vihear. The two countries traded gunfire two weeks ago. The yellow shirts feel that Mr Abhisit has acted weakly. Government moves to resolve the issue peacefully leave the PAD cold. On February 22nd Indonesian observers were allowed to monitor a ceasefire.

Yet this time the PAD is not tapping into popular anger and grievance. The few thousand campers are far smaller in number than the tens of thousands who swamped government buildings and closed down the airport in 2008.

With elections possible this year, the government calculates that it is now strong enough to dispense with yellow-shirt support. A booming economy allows Mr Abhisit to indulge voters with populist handouts. He no longer has use for the unpredictable, sometimes violent, street politics of the yellow shirts. As a result, says Thitinan Pongsudhirak of Chulalongkorn University, the PAD feels abandoned by the very government that it helped put into power.

As formal parties gear up for elections, Thai democratic politics are returning to a semblance of normality. That too ill serves a protest movement like the yellow shirts. This week the government unexpectedly released seven opposition red-shirt leaders on bail. They had spent nine months in detention for their part in anti-government rallies that ended in a bloody police assault last May. The gesture is aimed at reducing street protests on both sides of the colour divide. Given their record, nobody is writing off the yellow shirts yet. But for the moment their influence looks as if it has peaked.

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An earthquake in New Zealand

When luck ran out

Feb 24th 2011 | from the print edition

A second big Christchurch earthquake in six months is worse than the first


It looked like England before

IN THE middle of the day on February 22nd an earthquake shattered Christchurch, New Zealand's second-biggest city, killing 98. The number is sure to rise. Several hundred of the city's 386,000 residents are trapped or missing. In one building alone, housing a local television station, 100 are feared dead. It could be New Zealand's worst ever disaster.

The tragedy came less than six months after an earlier quake hit Christchurch, causing heavy damage, but amazingly killing no one. The South Island has now had its share of horror stories: in November an explosion at a coal mine at Pike River, across the Southern Alps from Christchurch, killed 29 men.

In seismic terms, the latest earthquake was less severe than September's (6.3 magnitude compared with 7.1). But at 5km (3 miles) down, its focus was at half the depth-and the epicentre a mere 10km from the city compared with 30km last time. The timing was also terrible, with the streets bustling with lunchtime workers, tourists and schoolchildren.

Christchurch's older, colonial-era buildings in the most "English" of New Zealand's cities had borne the brunt of September's earthquake. Many of its newer buildings toppled this time, along with the spire of the Anglican cathedral, crushing visitors. In the Southern Alps, great chunks of a glacier fell.

John Key, the prime minister, has declared the country's first ever national state of emergency, as the scale of the damage swamped Christchurch's services, and relief centres filled. The army has been called in. A team of search-and-rescue specialists crossed from Australia. New Zealand has accepted offers of help from Britain, Taiwan, Japan and Israel. Yet aftershocks frighten residents and complicate rescue efforts.

Beyond the immediate horror, the effect on Christchurch and the wider Canterbury region will be tough. The city is the gateway to the alpine scenery made popular by the filming of Tolkien's books. In September and October Christchurch is scheduled to host several games of the Rugby World Cup, promising to be the biggest international event New Zealand has hosted. But hotels have been hard hit, and the main stadium is being assessed for damage. September's quake, along a previously unknown fault line, had unnerved locals. How and where to rebuild are now big questions.

In Wellington, the capital, the cabinet approved special measures to meet the cost of the aftermath, and the government declared itself ready to borrow more on international markets. Still, the economic cost, perhaps $6 billion, is sure to sting.

Mr Key's conservative coalition government faces an election in November. The prime minister first won praise for his government's handling of last year's disasters. But then grumblings grew over delays in compensation and reconstruction. New Zealanders are already coping with rising living costs and unemployment. Lately the government's stellar poll ratings have begun to sag slightly. The longer-term costs of recovering from Christchurch's devastation pose another challenge to Mr Key's fortunes.

India's huge census

Heads up

Feb 24th 2011 | *DEHRADUN* | from the print edition

A national head count should show dramatic changes

THE director of the census office in Dehradun, the capital of Uttarakhand state in northern India, faces a problem. Late in 2010 her staff safely counted the herders and other residents of the highest villages in the country, before heavy snow made Himalayan travel almost impossible. Now, though, the national census is in full swing, and she has yet to assess the soldiers who guard the borders with China to the north and Nepal to the east. Given wintry conditions, they can only be reached by foot. And the information, once gathered, will be militarily sensitive.

Luckily, a hero is to hand. An artillery officer, three stars on his epaulettes, has come down from the mountain in order to train as an enumerator. He will join an army of nearly 2.7m workers, a number larger than the entire population of many small countries, to conduct the national head count, which must be finished by February 28th. It is a mammoth project. Nearly 1.2 billion heads, at the best guess, will be totted up. Each respondent is supposed to answer a stream of questions, posed in any of 16 languages.

The census takers, following habits established by the imperial British in the first national count in 1872, will cover 650,000 settlements. They are supposed to question everyone, including forest-dwelling tribal people, hostile occupants of remote islands in the Andaman Sea and the homeless crouched in the railway stations of India's cities. They may avoid only those areas infested with insurgents, such as parts of Chhattisgarh in eastern India that are prowled by Maoist guerrillas known as Naxalites.

It is already clear what some of the results will show. Demographic projections suggest a net gain of 180m people in India over the past decade, or 34 extra heads for each passing minute. By 2025 Indians will outnumber the Chinese. The most rapid growth continues in poorer states, notably in the north and east. Remarkably, thanks to scanners that can each read 50,000 handwritten forms a day, initial population figures are supposed to be published within a month of census day.

More important for policymakers (and in turn for firms and others that rely on census data) are the details of social and economic trends. The last census, for example, revealed the dreadful scale of imbalances in the sex ratio in Punjab, Haryana and a few other states. Laws to prevent the abortion of girl fetuses followed. The new count should show if they have had any effect (with the cheap availability of ultrasound, do not bet on it). Similarly, the census should measure the success of a national campaign to improve India's dismal rates of literacy.

The survey will also give details of how a decade of rapid economic growth has changed the daily life of ordinary Indians, especially among the fast-growing middle class. Questions will produce hard data to show rapid migration of rural dwellers to the towns. Consumption habits are also changing. The previous head count revealed that at the start of the century fewer than half of India's households owned a bicycle, television or toilet. Under a tenth of households had a phone, and a mere 2.5% owned a car.

Now firms add millions of new phone subscribers to their books each month, and sales of cars, scooters and other consumer goods are surging. In Dehradun, for example, a blue haze hangs over streets where vehicles jostle to move even at walking pace. For the artillery officer tramping back to his regiment, navigating the cramped city roads may be more of a pain than trekking through the snow.

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Digging up Japan's past

Deafening silence

Feb 24th 2011 | *TOKYO* | from the print edition

An investigation into wartime atrocities, but the media keeps strangely quiet



The things Toyo Ishii saw

PROOF of mass murder could lie in a genteel enclave of west-central Tokyo. It took over four years for the government to remove an inhabited block of flats so that the search for the truth might start. But on February 21st two diggers began scooping up and gently winnowing the ground in search of human remains. Barely a word about it has appeared in the national press.

Japanese journalists do not usually shy away from a murder mystery. But this one is in a different league. The site might be a link to one of the most atrocious sets of crimes Japan committed during the second world war. It involved medics in Unit 731, a covert body in the Japanese imperial army charged with developing techniques of chemical and biological warfare. The medics carried out experiments on humans, including vivisection without anaesthetic. Some later rose to the top of Japan's post-war medical establishment, abetted by occupying American forces.

The excavations stem from testimony given to the government in 2006 by Toyo Ishii, a former nurse at a nearby army medical school during the war. There she often encountered doctors working on pickled human remains. She said she did not know what they were doing. As the Americans approached in 1945, she and her colleagues were hastily ordered to get rid of the body parts. Human remains, she said, were buried on the site where the diggers are now working. Ms Ishii says she saw a dog run off with a human bone.

It is no secret that the medical school was the Tokyo headquarters of Unit 731. Most of the unit's activities took place in occupied Manchuria, in north-east China, where the victims of its ghastly experiments were Chinese, Koreans and Russians. They were exposed to plague and cholera. Those who suffered vivisection, including women made pregnant by the doctors, were called "lumber".

Since 2002 Tokyo courts have at least acknowledged that Unit 731 took part in experiments in germ warfare. American documents also reveal that some American occupiers valued the results of the experiments, however horrific, and shielded the medics from trial for war crimes. Many of the unit's staff went on to top positions in leading drugs firms and universities, and some set up Japan's first commercial blood bank, Green Cross, which later became notorious when 200 Japanese died from transfusions of blood tainted with HIV.

Yet the government has never acknowledged Unit 731's atrocities, even after mutilated skulls and bones were discovered in 1989 a few hundred yards from the excavation site. A black obelisk stands where the remains are buried, describing them merely as human "specimens". Chinese requests for DNA samples to establish the identity of the remains have been rejected.

The health ministry doubts that anything will come of the new investigation. But if the ministry is wrong, the government of Naoto Kan faces a challenge. The Democratic Party of Japan is the country's first ruling party whose leaders are not linked to Japan's belligerent past. Mr Kan himself is keen to improve strained relations with Japan's once-oppressed neighbours, especially South Korea and China.

Back when he was health minister, Mr Kan made his name by helping to expose the scandal of HIV-tainted blood peddled by Green Cross. Separately, he also promises to "examine every grain of sand" to repatriate the remains of 13,000 fallen Japanese soldiers who are still unaccounted for at the Pacific Island battleground of Iwo Jima. If the burial site in Tokyo contains the remains of foreigners and he does not seek to make amends, he will lay himself open to accusations of double standards. At the moment, the press silence suggests that the Japanese in general still lack an appetite for atonement.

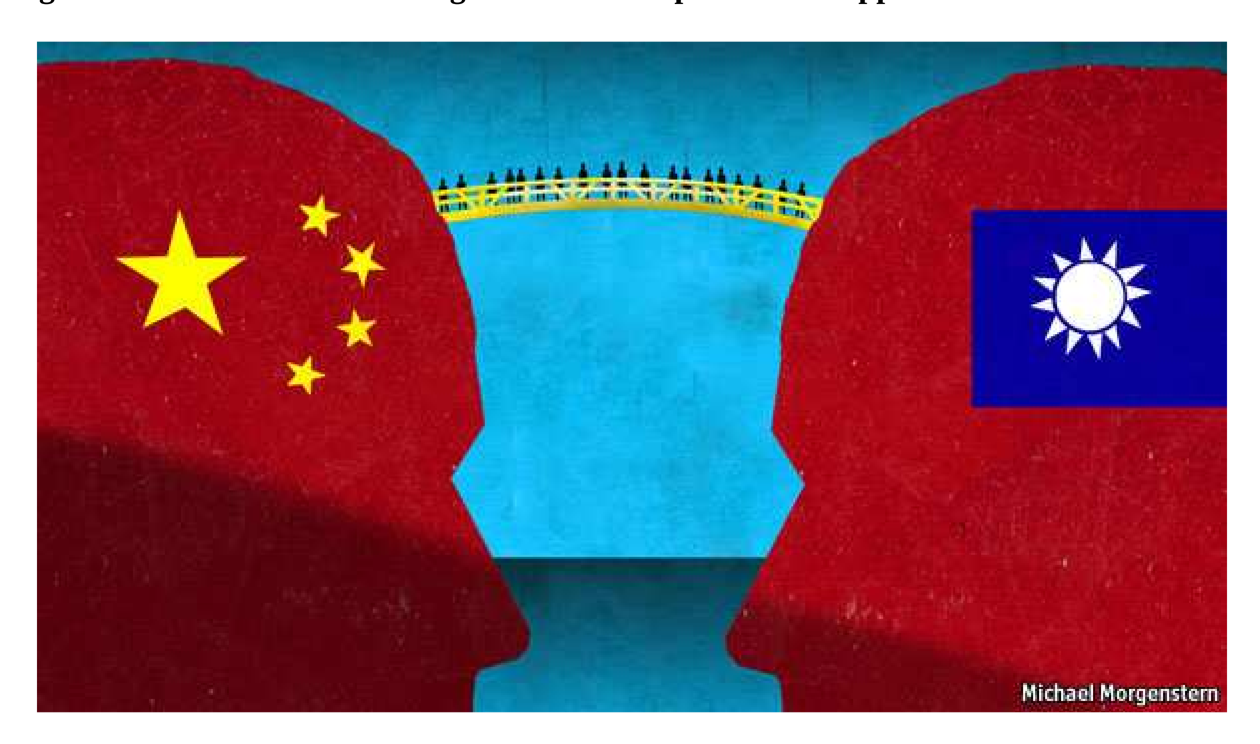
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Banyan

Taiwan's commonsense consensus

Feb 24th 2011 | from the print edition

Economic integration with China is not doing what China hoped and the opposition feared



TWO elderly men in baseball caps have been touring Taipei's government district this week with a loud-hailer. The slogans they shout are plastered over their battered little van: "Warmly welcome Chen Yunlin and the inauguration of the Economic Co-operation Committee!" It is not catchy, and nobody pays a blind bit of notice. Their excitement about two of the latest signs of Taiwan's burgeoning ties with China is not widely shared.

Mr Chen is a Chinese official who has been leading negotiations with Taiwan. Since Ma Ying-jeou was elected Taiwan's president in 2008, these have led to 15 cross-strait agreements, including last year's "ECFA" (Economic Co-operation Framework Agreement)-a free-trade agreement in embryo. Mr Chen arrived in Taiwan on February 23rd with a group of businessmen, scouting investment opportunities. The day before, an Economic Co-operation Committee (ECC), a joint China-Taiwan body to oversee implementation of the ECFA, met for the first time.

All this is par for the course these days. Exchanges between the two sides have been booming for over 20 years. China and Hong Kong take more than 40% of Taiwan's exports; its businesses have at least $90 billion invested in the mainland, where some 800,000 Taiwanese live. And the past couple of years have seen a remarkable acceleration in exchanges. Besides Mr Chen and the ECC members, 400 Chinese travel agents arrived on February 22nd. The previous week saw the

mayor of Nanjing fly in with 100 people in tow, and the governor of Liaoning province with 800. Regular direct flights began only in July 2008. Yet last year 1.6m Chinese tourists visited.

For both Mr Ma's Nationalist Party, the Kuomintang (KMT), and the Chinese Communist Party, this is a deliberate political strategy. The KMT hopes to show voters the benefits of better ties with China, after the fraught eight-year presidency of Chen Shui-bian, of the Democratic Progressive Party (DPP), which believes Taiwan is independent of China.

Taiwan's economy grew by over 10% in 2010, when Taiwan recorded a surplus on bilateral trade of more than $70 billion with China and Hong Kong. China hopes economic interdependence will win hearts and minds. This will keep the more congenial KMT in power. And it will bring closer the day when Taiwan's people fall willingly back, as China sees it, into the warm embrace of the motherland and "reunify".

This cunning plan does not seem to be working. In local elections in November, the DPP won more votes than the KMT. Despite being trounced in the presidential election in 2008, and seeing its former leader, Mr Chen, jailed for corruption, the DPP now has a realistic chance of winning back the presidency next year. And in polls on Taiwan's future reported by the government's Mainland Affairs Council, support for unification "as soon as possible" is as low as it has ever been, at 1.2%. Even the numbers wanting "status quo now/unification later", at 17.6%, have barely budged since the 2008 election. In the same period, support for independence, now or later, has climbed from 30.5% to 35.5%.

Perhaps this is not so surprising. Taiwan has long behaved as a normal country in almost everything except its dealings with its large neighbour. As those become easier, the status quo seems even more desirable. And increased contact highlights points of difference as much as a shared ethnic and cultural heritage. Knowing China better makes Taiwanese even more aware of how lucky they are to be prosperous and free.

So Mr Ma has to balance his economic romance with China with political aloofness. In response to the upheavals in the Middle East, he has called for reform in China. He keeps asking America to sell Taiwan new fighter jets. This week he berated an envoy from the Philippines, with which Taiwan is furious for deporting Taiwan citizens accused of fraud to China.

Perversely, the traditionally "pro-independence" DPP is better placed to profit from the heightened sense of a distinct Taiwanese identity that increased contacts are spawning. But it too faces a dilemma. People undoubtedly do like the economic benefits of co-operation with China. The KMT has negotiated them under a weird formula known as the "1992 consensus", in which China and Taiwan sit down together agreeing there is only "one China", while keeping silent about what that means.

The DPP rejects this. The rival contenders for its presidential candidacy next year are competing to come up with other "consensuses" to propose as a substitute. They know that to be a credible party of government again, they have to be able to deal with China. As one supporter puts it, "that's not a consensus, it's common sense." So this week the DPP launched a think-tank intended both to devise a workable China policy and to act as a channel for cross-strait talks. China seems ready to give the DPP a chance. The trip by Chen Yunlin, the senior Chinese negotiator, includes a foray into the party's heartlands in the south of the island. The DPP itself is for once not to stage any protests against his visit, though doubtless plenty of citizens will.

Make me free or Chinese. But not yet

The KMT likes to portray the DPP as dangerous hotheads who might force China to carry out its threat of invasion if Taiwan declares independence. The DPP paints the KMT as a party of Chinese stooges leading Taiwan blindfold towards absorption by the mainland. In fact, the two parties are having a more sophisticated argument: not about independence or unification, but about how best to preserve a status quo most people in Taiwan cherish. The danger is how China might react as it becomes clear that present policies are bringing unification no closer. The hope is that, with so much else to preoccupy it, its leaders will enjoy the smoother relations and not ask where they are leading.

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Uganda's election

Rambo reigns

Feb 24th 2011 | *KAMPALA* | from the print edition

The president of 25 years increases his share of the vote after playing a little fairer



IT IS not all doom and gloom for African strongmen. President Yoweri Museveni of Uganda seized power in a bush war in 1986 and over the years shunted his nation of 32m people away from chaos. Now east Africa's longest-serving leader, he won another five-year term on February 18th.

According to the country's respected election commission, Mr Museveni got 68% of the vote and his main rival, Kizza Besigye, won 26%. This is a substantial improvement for the president on the 2006 election, when he got 57%-and then only after trying to frame Mr Besigye for rape and inflicting beatings, censorship and jail sentences on opposition supporters.

At the time, Mr Museveni seemed to be heading for the bloody basement of African politics. But the past few years have seen him clean up his act. He now prefers calibrated populism, enlivening his campaign with rap songs and promises to boost youth employment.

A meagre election turnout meant that uncouth staples of Ugandan politics such as ghost voters and overly friendly election officials were not needed, yet few doubt they were available. Mr Besigye and other opposition candidates managed to campaign freely. The press felt less bullied. Political observers in Kampala say that, where Mr Museveni had previously tried to win by any means, this time he mainly relied on money. The election was the most expensive in Ugandan history. Mr Museveni handed out envelopes of cash to peasants, teachers and local officials up and down the country. Many of his richest and most powerful supporters are hoping to benefit from recent oil finds in the Albertine basin, along the border with Congo.

Mr Museveni deserves credit for his far-sighted advocacy of regional economic integration. He has also championed Uganda's muscular stance in Somalia, where his soldiers are leading an African Union peacekeeping mission battling jihadist fighters linked to al-Qaeda. Roadside stalls in Uganda sell posters showing the 67-year-old president as Rambo, the heavily armed Hollywood fighter.

Soon he might also be depicted as J.R. Ewing, a television oil king from "Dallas". The Albertine fields could yield 3 billion barrels of crude oil. Mr Museveni wants to build a $2 billion refinery to make the most of it. That would give the country energy independence and change the balance of power with neighbouring Kenya, which the president sees as a bully.

Ultimately, his political durability derives from the trade-off many Ugandans are prepared to make between peace and plurality. Mr Museveni brings security to a country that remains ill at ease with itself and is still haunted by the bloody rule of Idi Amin. But this security comes at a cost. Government grandees who started as freedom fighters, known as "historicals", have accrued financial benefits for themselves.

Conversely, Mr Besigye's future looks grim. This is his third electoral loss to Mr Museveni. He rightly points to collusion between the state and Mr Museveni's National Revolutionary Movement (NRM). But crying foul got him little attention.

No fighting

The presence of security forces across the country on election day-including irregulars armed with cudgels-has so far seen off any chance of popular unrest. Notoriously restive motorcycle taxi drivers were paid off to deter gang violence.

Mr Besigye has to take some responsibility for his own demise. He was outwitted as well as outspent. His manifesto failed to excite voters. Some said he came across as angry. Nor did enough Ugandans feel inspired by an opposition leader who once served as Mr Museveni's personal surgeon and political commissar. He could not exploit the ill-will they feel towards Mr Museveni's meddling with the country's traditional system of Bantu kingships.

Mr Museveni easily carried regions where Mr Besigye had hoped to make inroads. The underdog assumed that events in Egypt would sway voters. "People are saying no to dictators and leaders who are imposing themselves on the people," he said. Not in Uganda.

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South Africa's economy

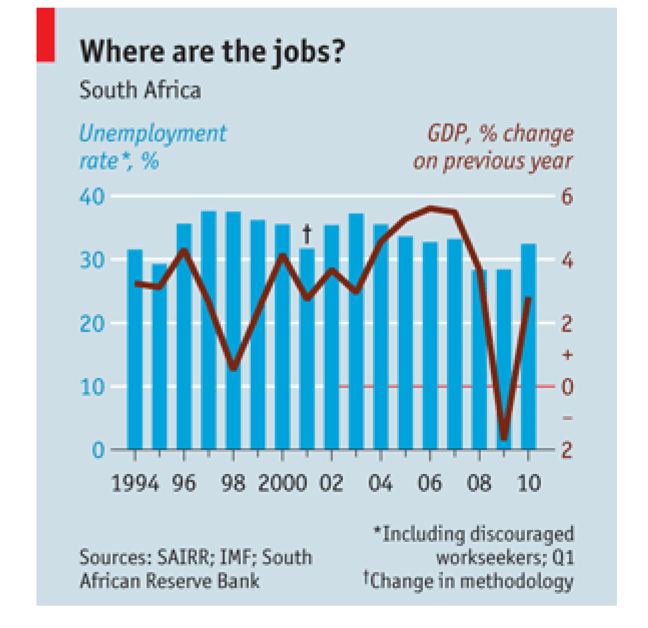
No jobs, boys

Feb 24th 2011 | *JOHANNESBURG* | from the print edition

The unemployment rate refuses to come down

THE ruling African National Congress (ANC) came to power in 1994 on a promise of "Jobs, jobs, jobs!" But ever since then the number of jobless, including those too discouraged to keep looking, has hovered around 30%. Participation in the labour force is a good 10-15 percentage points below other comparable developing countries. In 2004 the government pledged to cut unemployment in half by 2014. But the best it can now promise is to do so more or less by 2020.

In a state-of-the-nation speech earlier this month, President Jacob Zuma proudly called 2011 the "Year of Job Creation" and vowed to increase the number of people in employment by 5m within the next decade. Many observers were sceptical. Moody's Investors Service, a New York-based ratings agency, described the goal as "extremely ambitious" and unlikely to happen. Most South Africans however were willing to withhold judgment until the government's budget speech on February 23rd, when they hoped the details would be fleshed out. They have been left largely disappointed.



While promising money for various "job-rich" projects, Pravin Gordhan, the finance minister, failed to explain how the government would achieve the 6-7% growth that he himself has said would be necessary for the next two or three decades to cut unemployment by much. Over the 17 years that the ANC has been in power, growth has averaged just 3.5%. Mr Gordhan is predicting 3.4% growth this year, up from last year's 2.8%, rising to 4.4% in 2013-still far below what is needed.

Mr Zuma has said he expects the private sector to create most of the promised 5m jobs. Business leaders replied that they are willing to help. But they need the right environment, including a relaxation of South Africa's labour laws, among the most rigid in the world, and greater policy certainty from ministers. They said the government appeared to be moving in the opposite direction.

Under proposed labour laws, recently approved by the cabinet, employers would no longer be able to take on short-term staff save in exceptional circumstances. Temping agencies would be abolished and companies would be required to register all vacancies with government labour centres. The new laws also seek to tighten existing legislation on affirmative action, decreeing that black South Africans must constitute at least 60% of senior management by 2017, up from 26% at present. Hiring skilled foreign workers would become more difficult. Violating these laws would result in a fine equivalent to 2-10% of a company's annual turnover.

Africa's biggest economy and most stable democracy still has a lot of attractions, including its banking system, auditing standards, securities regulation and corporate governance. Indeed, some international analysts are predicting a very bright future. Barclays Capital, an investment bank, lists South Africa as one of the top ten "advanced emerging markets", describing it as part of a "new breed of countries poised to exhibit solid and stable growth". PricewaterhouseCoopers, a consultancy, expects South Africa to be the world's seventh-fastest growing economy up to 2050, with growth averaging 5%. Perhaps. But how many jobs will it create?

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Djibouti's troubles

Wee but worrisome

Feb 24th 2011 | *NAIROBI* | from the print edition

Foreigners fear for influence and access in a tiny African country



WITH only 860,000 souls, Djibouti is a miniature state in a big, bad neighbourhood. Yet the country is vital for the arid region around the Horn of Africa. Its port is a lifeline for its giant neighbour, Ethiopia, which is hemmed in by Somalia and lost its access to the sea when Eritrea became independent in 1993. France keeps the 13th demi-brigade of the Foreign Legion there-about 2,600 troops and airmen. And over the past decade, America has set up counter-terrorism and counter-piracy bases with 2,200 men and women.

Most foreigners are warmly welcomed by President Ismail Guelleh, who is conspicuously seeking to model his country on Dubai. He came to power in 1999 and his People's Rally for Progress has ruled Djibouti since independence from France in 1977. On billboards in the capital, Djibouti Ville, he declares, "*nous croyons*" (we believe). Increasingly, the president seems to believe in his own abilities. He changed the constitution last year to allow himself at least six more years. Elections are due in April.

Djibouti's fractured opposition was buoyed by the revolutions in Tunisia and Egypt as well as the protests across the Red Sea in Yemen. On February 18th it demonstrated against the government's grasping ways, hoping to exert pressure on Mr Guelleh to level the playing field before the election. But a peaceful protest turned nasty after police arrived. At least two people died and opposition leaders were briefly imprisoned.

If protests got more serious and the port shut down, Ethiopia might be tempted to invade. The French would probably beat them to it though. That would make the small state even more brittle.

Djibouti is ethnically Somali and it serves as a refuge for Somali money, intellectuals and clan leaders fleeing their capital, Mogadishu. Ethiopia is said to run a network of spies. Somaliland, another neighbour, has increasingly close trade links with Djibouti. Relations with Eritrea, on the other side, are tetchy. The two countries have a border dispute.

The pressing question on the minds of outsiders is whether they should continue to back Mr Guelleh or allow history to take its course. It is not clear to what extent the events in North African countries are affecting the rest of the continent. But it is perhaps telling that, in addition to Djibouti, Arab-influenced Sudan has had to bow to demands for greater accountability. Its president, Omar al-Bashir, announced this week that he would not stand for re-election. But after more than two decades in power, Mr Bashir might find it all too easy to renege on his pledge.

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Defence reform in Germany

The Teflon minister

Feb 24th 2011 | *BERLIN* | from the print edition

Germany's popular defence minister may survive a plagiarism scandal. Now he must show he can reform the armed forces



HE IS married to a Bismarck, wears bespoke suits and pays photogenic visits to the troops in Afghanistan. He even held a doctorate. Karl-Theodor zu Guttenberg, Germany's defence minister, is without doubt the country's coolest politician. But as of February 23rd he is a doctor no longer. He renounced the title days after the discovery that much of his 2006 doctoral thesis was copied from other sources without proper attribution. More than a fifth of the text was plagiarised, according to GuttenPlag Wiki, a website dedicated to vetting it. The media have delighted in bestowing nicknames on the minister, such as "Baron Cut'n'paste" (a reference to his blue-bloodied origins) and "zu Googleberg". He has admitted to "grave mistakes", but said he did not commit them knowingly.

His powers of survival seem preternatural. "I didn't hire him as a research assistant," said the chancellor, Angela Merkel, herself boasting a PhD (legitimately, it is believed). She described his ministerial performance as "outstanding". Mr zu Guttenberg's allies envy his popularity, but they need him. His charisma has lifted the sagging poll ratings of his Christian Social Union (CSU), the Bavarian branch of Mrs Merkel's Christian Democratic Union. Facing six more state elections this year (after a heavy defeat in Hamburg on February 20th; see article) and the ongoing euro crisis, the chancellor can ill afford a cabinet reshuffle. Voters encourage the pretence that the plagiarism does not matter. According to a poll, nearly three-quarters want Mr zu Guttenberg to stay in office.

The scandal has diverted attention from the reform of the armed forces, one of the government's main projects. Mr zu Guttenberg has done one big thing: ending conscription, which had been a bulwark of Germany's post-war order. He promises much more: a leaner, cheaper and more effective force fit for the 21st century. Although Germany's 250,000-strong army is to shrink, the number that can be deployed on far-flung missions may double, to 14,000. So far Mr zu Guttenberg has not realised these plans. "The announcements sound good, but I'm concerned because there seem to be no hard decisions," says Alexander Bonde, a Bundestag member from the opposition Green party.

That is partly because Mr zu Guttenberg's colleagues have tied his hands. The government insists on maintaining a bigger army than he wants: 185,000 troops, about 20,000 more than he has argued for. It also demands euro8.3 billion ($11.3 billion) of savings from his budget by 2014. That target is debatable. Some analysts think money-saving reform requires extra spending up front, for example on higher salaries to attract volunteers. Others welcome the fiscal pressure as a spur to efficiency. But the larger army stipulated by the government seems wrong-headed. A smaller force would propel bigger cuts in military flab, such as the 450-odd bases spread across Germany. With fewer soldiers the ministry could spend more to equip each of them properly and still meet the budget targets, says Mr Bonde.

But there are bigger problems. The reshaping of the army ought to be guided by new thinking on strategy and by a sensible division of labour with Germany's allies. That is not happening, says Christian Molling of the German Institute for International and Security Affairs in Berlin. Mr zu Guttenberg is paying too little attention to the lessons of Germany's experiences in Afghanistan and elsewhere, which show that military action in failed states is worth little without civilian complements like police-training and school-building. Civilian ministries are not part of the reform discussion, says Mr Molling.

At the same time, collaboration with allies is on a slower track. Last summer the defence ministry compiled a "priority" list that promised billions of euros in savings on weapons systems. Little has been heard since. "What we're doing now is strategy-formation backwards," says Mr Molling.

The most concrete ideas so far have been bureaucratic. They come from Walter Otremba, a defence-ministry official who refined the recommendations of a commission set up by Mr zu Guttenberg. He would pare the ministry to its core functions-planning, policy, and making sure the armed forces have the structure and resources to carry out missions-and cut its headcount from 3,100 to 1,800. The top general, until now a first among equals, would be placed more firmly in charge of the armed forces and more clearly in authority over the service chiefs. These are good ideas, says Mr Molling, but they deal only with management, "which can't be better than the policy."

Mr zu Guttenberg knows this. The armed forces cannot meet Germany's strategic needs "with cosmetic changes alone", he has said. He has declared "the hour of Europe," a time to pay "more than lip service" to the idea of a common defence. Last September he helped launch a German-Swedish initiative to co-ordinate military capabilities, which was later taken up and expanded by the European Council, the assembly of European heads of government.

It is above all Mr zu Guttenberg's rhetoric, which feels uplifting and bracingly candid, that has endeared him to German voters. He has the trick of appearing to speak truth to power while being riveted to power himself. You might expect the sin of plagiarism to be fatal for the zu Guttenberg brand. Not yet, apparently. Thanks to Germans' willingness to overlook it, Mr zu Guttenberg may yet have a chance to turn his own words into deeds.

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German politics

Unhappy in Hamburg

Feb 24th 2011 | *BERLIN* | from the print edition

Angela Merkel's party takes a pasting in a state election

IN AN election on February 20th the citizens of Hamburg, a port city with the status of a state, inflicted an historic drubbing on the Christian Democratic Union (CDU), the party of Germany's chancellor, Angela Merkel. Its share of the vote tumbled by nearly half, to 22%. The mayor, Christoph Ahlhaus, was turfed out after just six months in office. The Social Democratic Party (SPD) stunned even itself by winning nearly half the votes and a majority of the seats in the city's legislature, the Burgerschaft. Olaf Scholz, the incoming mayor, will govern without a coalition partner.

This was the first of seven state elections in 2011 that will test both the resilience of Mrs Merkel's coalition with the Free Democratic Party (FDP) and the prospects of the main opposition parties: the SPD, the Greens and the ex-communist Left Party. Happily for Mrs Merkel, the Hamburg vote was a verdict on Mr Ahlhaus's government rather than hers. The CDU-Green coalition, the first of its kind at state level, fell apart soon after the popular mayor, Ole von Beust, retired prematurely in August. Mr Ahlhaus, a conservative Heidelberger, never appealed to the liberal Hamburgers.

The results mean more for the SPD, which hopes to break through the 30% ceiling in national polls. Mr Scholz wooed Hamburg's middle class and its entrepreneurs, naming an ex-head of the chamber of commerce as his shadow economy minister. The lesson, said Sigmar Gabriel, the SPD's chairman, is that economic issues matter as much as social justice, the party's usual emphasis.

Almost as happy was Guido Westerwelle, the beleaguered chairman of the FDP and Germany's foreign minister. He and his party were so unpopular that he looked in danger of losing at least one of his jobs. Helped by a telegenic candidate, Katja Suding, and its opposition to an unpopular school reform, the FDP re-entered the Burgerschaft after a seven-year absence. If this recovery is sustained in the next few elections, Mr Westerwelle will be out of danger.

Mrs Merkel cannot be indifferent to the Hamburg defeat. Last year her government lost its majority in the Bundesrat, the upper house of parliament, which represents the states. After Hamburg her influence will wane further. The government got a taste of what that means this week when it was forced into an expensive compromise with opposition parties on welfare, which will entail higher benefits and a minimum wage for several types of worker. The three elections in March-in Saxony-Anhalt, Rhineland-Palatinate and Baden-Wurttemberg-should turn out better for the CDU than Hamburg did. But the stakes, especially in Baden-Wurttemberg, which the CDU has run since 1953, are higher.

Basque politics

Same, but different

Feb 24th 2011 | *MADRID* | from the print edition

The new political face of Basque militancy seeks legitimacy



Bata-what? Never heard of them

THE faces are new, but the back-room boys are the same. Sortu ("Create"), a new Basque separatist party, has been created by Batasuna-a party banned in 2003 as a front for the armed group ETA. Now a court must decide whether Sortu itself should be declared illegal. Will the new party also follow ETA's orders?

That is hard to say, and harder to prove. The new party's statutes clearly (and repetitively) state that it opposes violence. They even describe ETA as a group that acts against the "fundamental rights and freedoms" of people. "We are not the continuation of anything," insisted IÃ±aki Zabaleta, a Sortu spokesman, after handing the statutes to Spain's interior ministry on February 9th. But that might not be enough for judges to allow the party to stand in provincial and municipal elections on May 22nd. Many see Mr Zabaleta and his pals as puppets of gunmen. Prosecutors and police claim that Sortu is Batasuna, and hence ETA. Both want it strangled at birth.

A ban is politically tempting. ETA and Batasuna have a history of responding better to sticks than carrots. ETA called a ceasefire last September, declaring it "permanent and general" in January. It would not have done this without a series of police raids that left it in disarray, or without pressure from Batasuna leaders tired of wandering the political wilderness. The absence of a pro-ETA party, which would probably garner 10% of the Basque vote, allowed non-nationalists to take control of the Basque government in 2009. Previous nationalist governments, led by the Basque Nationalist Party (PNV), had relied on support from pro-ETA separatists.



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Political expedience is not, however, a valid argument in court. The strongest reason for banning Sortu is that it is a rebranded Batasuna. Even people who think it should be legal recognise this. "The steps taken by Batasuna meet the legal requirements," said Josu Erkoreka, a PNV deputy, after Sortu presented itself. The telltale mix-up of names is hardly surprising. A launch meeting for the party was given by two former Batasuna leaders; a former ETA boss sat in the audience. These people seem to pull Sortu's strings.

If Sortu is banned, Batasuna's leaders may instead plant their candidates in the electoral lists of Eusko Alkartasuna (EA), a dwindling non-violent separatist party that seems ready to co-operate. "They will stand, with one brand name or another," a PNV leader said.

Optimists retort that is no bad thing. Even ETA's fiercest opponents recognise that Batasuna's leaders need help if they are to wean the group off violence. Political representation could give them greater sway over the gunmen and women-although in the past ETA has commanded and the politicians followed.

Some fear the emergence of an intransigent, hard-core group equivalent to the Real IRA in Northern Ireland, adding another decade to the Basque country's 50-year history of separatist violence. Most Basques believe, however, that ETA's end is nigh. The question is how, and when, it will happen. There are no guarantees. The group might be tempted to kill again. That would put Sortu, or a Batasuna-backed EA, in a tight spot.

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Macedonia's fractious politics

Scandal, tension and turbulence

Feb 24th 2011 | *SKOPJE* | from the print edition

Business as usual in Macedonia

WANT an election? Fine. Since last month Macedonia's opposition Social Democrats, boycotting parliament, have wanted an early poll. So imagine their surprise when Nikola Gruevski, the populist prime minister, agreed. His calculation is simple: he will win. The Social Democrats have been caught off balance. The conditions are not right for an early poll, they are suddenly saying; there should be no election before June.

Macedonian politics has been poisonous recently. In November police piled into the building that housed A1 television, a private channel often critical of Mr Gruevski's government. A month later they arrested Velija Ramkovski, the tycoon behind A1. This is not about media freedom, says a source close to the government: Mr Ramkovski simply never pays taxes.

The affair is extremely murky. Lists have emerged that purport to detail the salary and tax affairs of A1 journalists, including payments made in cash. But Slagjana Taseva, head of the Macedonian branch of Transparency International, an anti-corruption watchdog, says many people in the private sector are paid like this. The decision to single out A1 shows that the affair is actually about "suppressing the media".

Who emerges from this mess strongest? Macedonian opinion polls are unreliable, but they suggest that Mr Gruevski is far more popular than Branko Crvenkovski, his opposition counterpart. Unemployment is high and the name dispute with Greece is still unresolved, stalling Macedonia's progress on joining NATO and the EU. You would expect such problems to favour the opposition. But Mr Crvenkovski has been prime minister twice and president once. He was unable to solve them then and today he looks tired.

To complicate matters, Macedonian politics is a game of three-dimensional chess. A quarter of the population are ethnic Albanians, almost all of them Muslim, who vote for their own parties. Mr Gruevski's coalition partner is Ali Ahmeti's Democratic Union for Integration. Suad Missini, an analyst, says Mr Ahmeti has been hurt by allegations (which he denies) that he was once an informer for Serbian intelligence.

Tensions between Macedonia's ethnic groups recently flared up over the construction of a church-shaped museum in Skopje's old fortress, which Albanians are unhappy about. The government said it would suspend construction. Builders sneaked in overnight to continue the works, followed by Albanians attempting to demolish it. Ten years after Mr Ahmeti's guerrillas almost tipped the country into war, no one wants a renewed conflict. But the problems will not go away.

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Jews in Poland

Warsaw's wounds

Feb 24th 2011 | *WARSAW* | from the print edition

Poland's chief rabbi symbolises a remarkable revival in Jewish life



A rabbi among millions

CRACKING jokes and dispensing wisdom in American-accented Polish, Michael Schudrich, the chief rabbi, is a fixture in Polish public life. Newspapers quote him; talk shows adore him; schools invite him. That is both good and important news.

Poland's few thousand practising Jews are a sliver of a pre-war population of 3.5m. Mr Schudrich, who was born and raised in New York but has spent most of the past 20 years in Poland, spends his time partly ministering to them, but more trying to add balm to the wounds of history. Hostile stereotypes about Jews abound among Poles, and vice versa. A new book co-authored by Jan Gross, a historian, may set off a new storm: it details looting of Jewish graves in chaotic post-war

Poland. Many in modern Poland prefer to focus on the common suffering under the Nazis, and on the large numbers of Polish "righteous Gentiles" honoured for saving Jews.

One success Mr Schudrich cites is Poland's rigorous investigation of a pogrom in 1941 in Jedwabne (now marked by an official apology from the country's president). Another was more personal. In 2006 he was punched by a skinhead (he hit back). The attack brought condemnation from media and politicians alike: the thug was seen as the outsider, not the rabbi. Behind the scenes, Mr Schudrich works hard to rebut simplistic outside judgments, as in 2009, when Britain's Labour Party tried to brand the Polish allies of their opponents, the Conservatives, as anti-Semites.

Aiding Mr Schudrich's reconciliation efforts are prominent Polish Jews and Catholic leaders (Pope John Paul II was a supporter). Last year Lech Kaczynski, the late president, invited Mr Schudrich to Smolensk to commemorate the Soviet massacres in 1940 at Katyn of 22,000 Polish officers (including the army's chief rabbi). But the event was on the Sabbath; Mr Schudrich declined-and missed the plane crash that killed Mr Kaczynski.

As Jewish culture, food and history become fashionable in Poland (an annual festival in Cracow is a big draw), many are unearthing roots that were buried or forgotten in Nazi or Communist times. One estimate holds that Poland has 20,000 "hidden Jews". Mr Schudrich stresses that identity is a matter of choice, but offers everything from advice to conversion for those who seek it.

That can involve paradoxes of a typically Polish kind, such as a former ultra-right couple, Ola and Pawel. Ola learned that her family was Jewish. When she told Pawel, he discovered his roots were, too. The pair sought out and befriended Mr Schudrich, becoming active members of Poland's Jewish community.

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Ukraine's president

Viktor Yanukovich turns eastward

Feb 24th 2011 | *KIEV* | from the print edition

One year after his inauguration, the Ukrainian president has taken the country in a more authoritarian direction



I won't drink it if it smells of oranges

Correction to this article

IN 2003 Leonid Kuchma, Ukraine's president, published a book called "Ukraine is not Russia". Just over a year later the "orange revolution" broke out in Kiev, depriving Viktor Yanukovich of his rigged victory in a presidential election. Although Mr Kuchma's book was mainly about history and culture, after the revolution its title was projected onto politics, becoming a mantra to both Ukrainians and the West. The rejection of Mr Yanukovich's election was seen as a new stage in the eastward expansion of Western values.

The contrast was striking. As Russia slid into authoritarianism, Ukraine was revelling in its newly won freedom. Just over a year ago, the ineffectual Viktor Yushchenko, the leader of the orange revolution, lost a presidential election to Mr Yanukovich. The return to power of a man who had tried to steal it five years earlier was a disappointment. But the peaceful transition also suggested that democracy had at least been consolidated in Ukraine.

Today, however, Mr Yanukovich's democratic credentials are looking more doubtful. The concern is not that Ukraine has lost economic or political independence, as many Western observers feared it might. Mr Yanukovich is too beholden to Ukraine's tycoons and too tight-fisted to share the spoils with Russia. It is rather that he is emulating Vladimir Putin's methods, albeit without Russia's imperial zeal. The free spirit that once characterised Ukraine is evaporating as quickly as it did in Russia a decade ago. Ukraine, until recently rated by Freedom House as the only free ex-Soviet country (apart from the three Baltic states), has been downgraded to partially free.

Mr Yanukovich has consolidated more power than any of his predecessors enjoyed. He has forced through constitutional changes to restore old presidential powers and add new ones. As in Russia in the early Putin years, the influence of parliament, prime minister and government has been cut back. Decisions belong in the presidential administration. Prosecutors, the constitutional court and the central bank have lost any semblance of independence. As Viktor Pshonka, a new prosecutor-general chosen by Mr Yanukovich, told a television interviewer, "I am a member of [Mr Yanukovich's] team, implementing all the decisions taken by the president...[He] is a very objective man."

Centralising power, say Mr Yanukovich's aides, was necessary to re-establish order after years of chaos. Sergei Levochkin, Mr Yanukovich's chief of staff, says the president is determined to pursue administrative and economic reforms. Red tape has been cut, he says, gas prices raised and the government is preparing to push through a pension reform and open up a market in land.

Yet as the experience of Russia shows, weak institutions mean government actions carry more weight than laws. The reforms have yet to appear but the thuggery and cronyism are in place. The first local elections fought under Mr Yanukovich were dirty. The air of intimidation has thickened. Investors complain of businesses being shaken down by Mr

Yanukovich's men. Alexander Lebedev, a Russian businessman who owns hotels in Kiev and Crimea, says his properties have been raided.

Mr Yanukovich has taken a leaf from Mr Putin's book by exploiting a right-wing nationalist party in western Ukraine to serve as an easily defeatable opposition that can also be presented in the West and in Kiev as an ugly alternative to his moderate Party of Regions.

Yulia Tymoshenko, a former prime minister who was Mr Yanukovich's main challenger at last year's election, says some of her party members have been intimidated into giving up their parliamentary seats. Several of her former ministers, including Yuri Lutsenko, who served as interior minister, are in detention for crimes allegedly committed in office. She herself is unable to leave the country, or even to travel within it.

To give its attack on Ms Tymoshenko an air of legitimacy, the government hired an American law firm to investigate her behaviour in office. But it turned up little. She now stands accused of spending money received from the sale of greenhouse-gas quotas on pensions rather than on reducing pollution, and of buying ill-equipped ambulances.

In a country where billions of dollars are siphoned off in shady gas deals, these charges seem not only political but flimsy. What really sets Ms Tymoshenko and Mr Lutsenko apart, says Yulia Mostovaya, editor of *Zerkalo Nedeli*, an independent weekly, is their experience in organising mass street protests. Mr Yanukovich, say some, is still haunted by memories of the orange revolution.

Meanwhile, corruption continues unchecked. Last year Ukraine set quotas for grain exports, half of which ended up in the hands of three domestic firms. "There was no logic for this restriction...apart from graft," says one foreign economist.

There are still many ways in which Ukraine is not Russia, says Andrew Wilson of the European Council on Foreign Relations, a think-tank. It does not have Russia's natural resources, its economy is less reformed, it has no imperial hangover and no tradition of a strong state. It is also more dependent on foreign financing, which gives outsiders greater sway. Yet few of Mr Yanukovich's actions have attracted serious criticism in the West.

One reason for this is fatigue with Ukraine; the appearance of stability has brought Mr Yanukovich relief from Western pressure. America, which was crucial in preventing the use of force during the orange revolution, has other things to worry about. Mr Yanukovich's agreement to relinquish Ukraine's stockpile of highly enriched uranium, one of the few tangible results of Barack Obama's summit on nuclear material last year, makes it harder for America to criticise him.

After an initial honeymoon, relations between Mr Yanukovich and Mr Putin have soured. But as the example of Belarus shows, this should be of no comfort to the West. There is little love lost between Belarus's president, Alyaksandr Lukashenka, and the Kremlin. Even so, Mr Lukashenka's brutal crushing of protests after a stolen election in December lodged him deeper in Russia's sphere of influence.

Ukraine is in a different league from Belarus, and still freer than Russia. But the trend is clear: the eastward expansion of Western values in the 1990s has been replaced by the westward creep of a post-Soviet model.

Correction: This article originally said that Mr Kuchma's democratic credentials were looking more doubtful. The reference should have been to Mr Yanukovich. This was corrected on March 1st 2011.

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Charlemagne

No time for doubters

Feb 24th 2011 | from the print edition

Europe must do more to support Arab democracy, out of self-respect and self-interest



WHEN people took to the streets of Tunis, France offered to help President Zine el-Abidine Ben Ali's security forces. When they filled the squares of Cairo, Italy praised Hosni Mubarak as the wisest of men. And when they were slaughtered in Tripoli, the Czech Republic said catastrophe would follow the fall of Muammar Qaddafi, Malta defended Libya's sovereignty and Italy predicted that the protests would lead to an Islamic emirate.

With every new Arab uprising, some European country has placed itself on the wrong side of history. So it is no surprise that the European Union has been slow to tell regimes to listen to demands for democracy and to condemn violent suppression.

When it comes to action the EU has fared even worse. It moved to freeze the assets of the Tunisian and Egyptian strongmen only after they had fled or resigned. Mr Qaddafi, despite his use of aircraft to kill Libyans, faced no immediate sanction from the EU (it halted trade talks and said it was "ready to take further measures"). Even the Arab League, the world's biggest club of autocrats, suspended Libya's membership. European warships and planes have been deployed, not to help Libyans but to stop refugees and migrants from landing on European shores, or to bring home EU nationals. President Alyaksandr Lukashenka of Belarus might ask why he and his lieutenants have been singled out for punishment by the EU, which has frozen their assets and banned them from travelling to the union. After all, he only stole an election, cracked protesters' skulls and jailed opponents.

One explanation is that it is still early days; the EU took more than a month to impose sanctions on Belarus. Another is that, given their history of imperial meddling in the Arab world, European countries should stay out of the revolts. The third is the fear of provoking collapsing regimes into taking European expatriates as hostages. Yet it is hard to avoid the suspicion that too many European countries are still more worried about stability in the Middle East than about democracy. For now, they have neither.

In truth, nuanced EU statements will hardly have been noticed by the protesters. Wrist-slapping sanctions would do little to change the actions of desperate rulers. But if only to send the right signal to other Arabs who are watching events, Europe needs to stand unequivocally on the side of those trying to cast off dictatorships. Just avoiding gaffes would be progress.

A better test of European diplomacy will be whether, in the longer term, the EU can help north African countries establish lasting democracies. Europe has a wealth of experience in helping to reform former totalitarian states. The democratisation of eastern Europe, though incomplete, is a striking success for the "soft power" of the EU, a body without much of the hard sort. But if enlargement has been the EU's most successful foreign-policy tool, the attempt to promote reform in borderland countries with little hope of joining has largely been a failure. The EU's "neighbourhood policy", launched in 2003, aimed to create a "ring of friends" by extending aid and benefits, such as access to the single market, in return for economic and political reforms. The idea was for an ever-closer association in which neighbours could enjoy "everything but institutions".

Yet the EU has little to show for the billions of euros it has spent. Belarus remains Europe's last dictatorship, Ukraine is moving backwards, the Arab-Israeli conflict is unresolved and punctuated by violence, and north Africa has languished, until this year, under the rule of autocrats. To its east, the EU has tried a bit harder to promote political reform, due in part

to the demands of its ex-communist members. But in the south the EU has focused mainly on economic development; this area gets the lion's share of neighbourhood-policy funds. Nicolas Sarkozy's vanity project, the "Union for the Mediterranean", a political club that has been paralysed since its inception in 2008, has if anything boosted Arab monarchs and presidents-for-life.

Stability has been paramount for many reasons: preserving Arab-Israeli peace treaties; fighting jihadist terrorism; curbing weapons of mass destruction; protecting oil and gas supplies; and preventing mass migration to Europe. These are not trivial concerns. Europe must deal with the neighbours it has, not the ones it would like. Its mistake was to lose belief in their ability to change for the better. But now that the Arab world is being remade from within, European policy must change too.

The EU's foreign-policy chief, Cathy Ashton, is being showered with ideas: Germany says EU support (including lifting barriers to agricultural trade) should be linked to democratic reforms. Italy wants more "carrots" to encourage orderly but rapid change, including an upgrade of relations with Egypt and Tunisia and a new system to manage migration. France, Spain and four others plead for more spending in the south and boosting the Union for the Mediterranean, with few or no conditions.

Remember 1989

The end of communism in the east was a great blessing for Europe. The fall of dictators in the south could be too, though the transition is bound to be more uncertain. In 1989 western Europe's communist foes collapsed; the people rose up against the resented Soviet occupier and were attracted by the West. In the Arab world it is the West's awkward allies that are falling, and the people there have long resented Western overlordship.

So far the revolts of 2011 have been strikingly free of Islamist, anti-imperial and even anti-Israeli ideology. Such sentiments could yet be stirred if Europe appears to be colluding with hated rulers. The uprisings have removed Europe's dilemma over pursing stability or democracy-its interests against its values. Stability is gone; interests and values are the same. The only answer is to embrace, help and protect those who want democracy.

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The French community in London

Paris-on-Thames

Feb 24th 2011 | from the print edition

The French influx to London suggests what governments can and can't do to boost their cities' allure



ONCE the quintessence of Englishness-it has Etonian board members, and emerged 125 years ago from the royal armaments factory-Arsenal Football Club has been coached by Arsene Wenger, a Frenchman, since 1996. The north London team usually fields more French players than English ones. The Eurostar trains to and from Paris even zoom past the club's Emirates Stadium, a corner of Islington that is forever France.

The Frenchification of Arsenal is perhaps the most famous example of a broader French influx to London. This, too, began in earnest in the 1990s as the city boomed with Britain's economy (though there has been a French presence since the Huguenot migration of the 17th century). Firm numbers are hard to come by; as European Union (EU) citizens, the French can move to Britain without registering with any authority. But their consulate estimates that up to 400,000 of London's 7.6m people are citizens of the republic, possibly making the French the largest minority nationality in the city.

A similar number of Britons live in France, but mainly for a sunny dotage in the bucolic south. French Londoners are often in their prime. The archetype is a banker with children at the Lycee Francais in South Kensington, the established hub of the community ("the 17th arrondissement"), who misses the food and weather of home. The City, a bigger financial centre than Paris, is keen on French workers, especially traders-products of an educational system that turns out mathematics whizzes in droves. It is rational interests, rather than cultural affinity, that draw this type of Frenchman to London: high-paid work, lower taxes (especially on wealth), and the chance to raise bilingual children.

But French Londoners have become a much more diverse group than this archetype allows. They can be found across the city, in gilded Marylebone, suburban Chiswick and the raucous east end. A new lycee will open in Kentish Town (near grungy Camden Town) this year. And though many come because of the favourable fiscal and regulatory climate created by successive British governments, some are here for reasons beyond ministers' direct control: the French invasion suggests both the ways that politicians can augment a city's allure, and how much of it is organic, spontaneous, and best left alone.

Anything goes

The superior beauty and efficiency of Paris often come at the price of dynamism. Many young French arrivals in London say they are fleeing rigid social codes, hierarchical corporate culture and a sense of distance from the global swirl of people and ideas. "It is hard to go back once you have tasted the internationalism here," says Jessica Moyal, who works in private equity.

French twenty-somethings see London as a "gateway to globalisation", agrees Edouard Braine, the French consul-general, who compares the ritual sojourns in the city taken by his younger compatriots to the globe-trotting gap years favoured by their British peers. Not all secure high-flying jobs: many come to study, or to work as au pairs or waiters while perfecting their English, or to find a niche in London's huge creative industries. Many young French of African or Arab origin also say that there is less discrimination in Britain.

As is true of many diasporas these days, amenities and technology allow the French to continue living a French life if they so choose, and not only because Paris is little more than two hours away by train. French Londoners have their own magazines, cinemas and cultural centres, which are all the better-resourced for being patronised by hordes of British

Francophiles. French Radio London, which took to the airwaves last November, serves up French pop and news. There will even be a new constituency in the French parliament at next year's general election to represent citizens living in Britain and northern Europe (which mostly means London).

But many of the younger arrivals-the ones to be found in grimy nightclubs in Dalston rather than the boutiques of Sloane Square-come to London precisely to live a messier, less French life in the company of new people. Last year, Ewen Ledain, a French postgraduate student, conducted a survey of this neglected genre of French Londoner ("*Les oublies de St Pancras*") for Le Centre Charles Peguy, a charity in Shoreditch that helps young French newcomers find jobs and accommodation. He found that very few cited a lack of work in France as their reason for coming. By far the most popular motivations were to improve their English and to experience something new.

Observers of London's French community do not think the downturn has shrunk its numbers much. True, some bankers lost their jobs in the financial crisis, and the City is recruiting less. But France itself is hardly booming. Mr Braine says that many of the French workers in Dublin who were laid off as a result of the Irish economic crisis are trying their luck in London rather than heading straight home. London remains attractive to French entrepreneurs, too. Mathieu Laine, a 35-year-old Parisian, is moving to London to open a new branch of his firm Altermind, a business consultancy. Britain's low and falling corporation tax rate is part of his motivation; but so is the "wind of freedom" he feels whenever he visits the city. Crucially, the government's new restrictions on immigration do not apply to EU citizens.

Far more likely to pull talented French people back home than Britain's economic doldrums is the prospect of France becoming more business-friendly. Nicolas Sarkozy is chipping away at taxes and regulations, and wants Paris to expand through private-sector development. That sort of thing is within the gift of politicians. But replicating the loose, globalised way of life in London-the anything-goes culture that draws a certain kind of young French person-will be much harder.

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Another London diaspora

Little Arabia

Feb 24th 2011 | from the print edition

The mood on the Arab street (in Knightsbridge)



At the Libyan embassy

"IT IS a crime against humanity," exclaimed Abdullah. He was among a group of demonstrators outside the Libyan embassy in Knightsbridge on February 22nd, six days after their protests began. They were preparing to march on Downing Street, in condemnation of Muammar Qaddafi's murderous repression of the uprising against his regime. "I wish I were back there, I wish I could help," Abdullah lamented.

Arabs in London, an online community group, reckons that there are about 300,000 Arabs living in the city, one of the biggest concentrations in Europe. It estimates that there are another 200,000 living throughout the rest of Britain. They are a mixed bunch: Egyptians, Moroccans, Iraqis, Palestinians, Yemenis and Lebanese, and some from the rich Gulf states. Many came in the 1950s and 1960s as the Middle East threw off the shackles of colonialism and revolutions broke out all over the place. Lebanon's long civil war in the 1980s and the brutality of Saddam Hussein's Iraq prompted others to flee to Britain.

Most support the rebellions in the Middle East. Mona El Kouedi came to London from Egypt five years ago and is now doing a PhD. "Many people are sceptical about the future of the Arab world," she says. "But those same people were sceptical that the Arab people would ever revolt against the dictators, corruption, torture and misery of their lives." In Libya, anything would be better than Mr Qaddafi, say many protesters.

But, though they are generally less visible than those clamouring for change, some Arabs in London are less enthusiastic about the upheaval-which in part reflects the city's status as a few-questions-asked refuge for the global super-rich, as well as a sanctuary for exiles and radicals. On the first day of the demonstrations in London those denouncing Mr Qaddafi were met by others noisily cheering him. Those with links to beleaguered regimes have particular reason to worry. At least one of Mr Qaddafi's sons is said to keep a bolthole in the metropolis. Gamal, son of the recently departed Egyptian president, Hosni Mubarak, also has a London pad.

Still, most Arabs in Britain are anxiously optimistic. Muhammad, a Tunisian, works in a supermarket on the Edgware Road, London's Little Arabia. His family is still in Tunisia. Asked whether things will turn out for the best, he smiles, shrugs and resorts to a well-worn Arabic fatalism: "God willing".

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The police and firearms

Calling the shots

Feb 24th 2011 | from the print edition

A debate about how and when bobbies should use guns



Problem or solution?

LESS than 5% of police officers in England and Wales carry a gun on duty. Infinitely fewer fire one, and fatal shootings by police are vanishingly rare (there were two in 2009-10). Every incident in which bullets are discharged is investigated by an independent commission. To a degree that many Americans find incredible, this fairly violent country is policed by men and women who might, on a difficult day, pack a baton and a can of tear gas.

That is partly because, for all the tabloid alarm over the alleged spread of weapons, gun crime in England and Wales is low, and falling: it made up less than 1% of all reported offences last year. But it is mainly because the policing tradition is rooted in 19th-century Peelian principles: the police are not supposed to impose order on an unwilling populace, but to operate with the consent of the community. The display and use of force is meant to be minimal.

That has not prevented some bobbies from being armed in some circumstances, at times quite a lot of them. But in general Dixon of Dock Green (the cuddly copper in a defunct but loved television series) is not meant to kick in doors brandishing semi-automatic weapons; outside Northern Ireland, even bulges on belts are rarely seen. There are currently only around 7,000 authorised firearms officers out of 140,000 police officers in all-a figure that has risen a bit since 2002-03 but has fallen from 13,000 in 1983. Each chief constable decides what level of armed capability is appropriate for his force (10% of London's Metropolitan Police force are authorised to carry a gun, for instance); forces help each other out when they are asked to.

But this model of a broadly unarmed police service capable of ratcheting up its firepower when required is now a subject of acrimonious debate. Maurice Punch, an academic attached to the London School of Economics and the author of a useful new book* on the subject, has loudly called for a public debate on how the police use firearms. The Independent Police Complaints Commission (IPCC) has urged much the same. There are several reasons why the matter is coming to a head.

Policing is in for a huge shake-up as the government brings in local political accountability in the form of elected police commissioners. This is bound to reshape police priorities. At the same time, severe budget cuts (central funding will be reduced by 20% over four years) are spurring discussion about just what the police should be doing. Training and maintaining firearms officers, who are often used in neighbouring areas, is expensive.

Faster, higher, fiercer

The third reason is that the terrorist threat facing Britain has evolved, from remotely detonated IRA explosives to Islamist suicide bombers-and the possibility that the sort of armed attack that killed 174 people in Mumbai in 2008 could be launched in Britain, perhaps during the Olympic games in 2012. This suggests to some that, if the police are to continue to play a central role in counter-terrorism, they may need to be more heavily armed and more centrally commanded. Last year the government's strategic defence review spoke of boosting police firepower and forging links with other services.

The police are determined that the Olympics will be a "blue" games, with any military involvement limited to niche roles and even police firepower only discreetly visible. But contingency planning for a serious incident contemplates deploying special forces alongside the police too. And it is conceivable that this set-up could remain in place afterwards.

"We shouldn't take a territorial or prissy view about what combination of assets to use," says Sir Denis O'Connor, the inspector of constabulary. "The main job is protecting the citizen. We have to be able to respond to these threats and they are real."

But anything that smacks publicly of a police slide toward paramilitary practice will be very difficult for the service. Even though, according to recent opinion polls, the police remain broadly trusted, their reputation has taken a number of knocks.

The shooting of a Brazilian electrician, mistaken for an Islamist terrorist after the London bombings in 2005, occasioned the biggest. But police have also been heavy-handed in dealing with protests, contributing in 2009 to the death of a bystander. The covert infiltration of environmental groups has been roundly criticised. Last year the IPCC found the police not without fault in the 2008 shooting of an armed but deranged lawyer in London. And two massive manhunts for lone gunmen in the north last summer are being picked over in the courts, causing some to question how effective the police would be against organised terrorist gangs anyway.

Still, the British bobby has been adapting and evolving for almost 200 years, frequently dealing with precisely this question of how armed he should be. In the past, says Mike Waldren, a former head of the Met's main firearms unit**, the solution has always been compromise. It almost certainly will be again.

* "Shoot to Kill: police accountability, firearms and fatal force". Maurice Punch. The Policy Press, University of Bristol, 2011

** "Armed Police: the police use of firearms since 1945". Michael J. Waldren. Sutton Publishing, 2007

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Banks and tax

No squeaks from these pips

Feb 24th 2011 | from the print edition

Britain is shocked to discover that one of its big banks doesn't pay much tax

THE Faustian pact Britain struck with its giant banks for the decade before the financial crisis went something like this: they were allowed to do pretty much what they wanted, including making piles of loot, but in return had to create jobs, buy ancillary services and pay loads of tax. One part of that pact has already been exposed as flawed, since it turns out that, given a free rein, banks sometimes blow themselves up. But it now seems as if another bit is suspect too: the idea that banks pay meaningful amounts of tax.

On February 15th, in a letter to an MP, Bob Diamond, the chief executive of Barclays, revealed that it had paid pound113m ($176m) in corporation tax in Britain in 2009. The group's global pre-tax profits that year were pound4.6 billion. Although it doesn't disclose its total British profits (against which British tax should be paid), they ought to have been chunky: about half of its revenue is booked in Britain and its British retail-banking arm made pre-tax profits of

pound710m. Compared with its level of activity in the country, the bank's tax bill looks paltry. Barclays said that its bill had been reduced by offsetting bad-debt charges incurred during the credit crunch, though it refused to specify what the bills had been in previous years.

Is there any hope for the long-suffering British taxpayer? Perhaps. The overall tax bill from the industry might not be so distressingly low. Lord Sassoon, a government minister, has said that the corporation tax levied from banks in the present fiscal year is expected to amount to pound4 billion. Taking expected pre-tax profits for 2010 for the big four banks-Lloyds, Barclays, Royal Bank of Scotland and HSBC-and assuming roughly 50% are made at home, that take looks fair. The banks also argue that they generate lots of other kinds of taxes, from national-insurance contributions to the taxes their employees pay (though that is true of all businesses).

And it could be even worse. When it comes to tax, companies have two versions of the truth: the theoretical tax bill, calculated using accounting profits, which their auditors compute fairly roughly; and the actual cash tax they pay-which can be lower thanks to timing lags, special allowances and historical losses, or because the tax authorities in the other countries a firm operates in define profits in a different way from the British auditors.

If a company is systematically avoiding tax, the cash payments are often much lower than the theoretical ones. Up to a point, from an investors' perspective this is a good thing, suggesting the firm is streetwise (as well as being the recipient of the banks' taxes, the British state is a shareholder in Lloyds and RBS).



But if the gap gets too big without a good explanation, it is a worry, suggesting spivvy managers. Lehman Brothers' cash tax payments were only 64% of its theoretical accounting charges in the five years before its collapse. A massive gap can even point towards fraud. Enron, the energy firm that was America's most infamous corporate-fraud case, paid cash tax of only 38% of its theoretical charge in the five years before its demise.

The good news about British banks is that in the run-up to the crisis, their position looked savvy rather than criminal (see chart). The tax gap was big enough to be irritating, but not to be terrifying.

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Governing the BBC

A lord to run the Beeb

Feb 24th 2011 | from the print edition

The new chairman of the BBC Trust faces a tough job



The panjandrum's next mission

ONE of the most coveted (if least well-defined) jobs in British public life is set to be filled: the BBC Trust, the broadcaster's governing body, will soon have a new chairman in Lord (Chris) Patten. A former Conservative cabinet minister, ex-governor of Hong Kong and, since 2003, chancellor of Oxford University, Lord Patten is a member of that nebulous but powerful nexus, the "great and good".

For the current ruling Tories, who before the election trumpeted radical intent about the BBC's governance, size and future role, this is, on the face it, a less than dramatic appointment. But, as one of the senior Conservatives who disagreed with Margaret Thatcher over Europe in the 1980s, Lord Patten has street-fighting form to go with his silkier diplomatic skills. He is certain to need both attributes in his latest august incarnation.

The entire structure of the BBC's governance has recently been called into question. Both partners in the coalition government are committed to abolishing the trust, fearing that it is too close to the BBC's management and that its remit is fuzzy: the trust is supposedly both a regulator and the defender of the BBC and the licence fee-payer's interests. Insiders say Lord Patten shares this sceptical view, and will seek to change the way the trust works, perhaps handing its regulatory role over to Ofcom, the main media regulator, when the BBC's charter comes up for renewal in 2016.

But some of the broadcaster's other problems can't wait until then. One issue is the BBC's much-prized impartiality. Many Conservatives believe that the corporation has in recent years been too left-liberal in its outlook; others worry that its incoming overlord will struggle to shake off his old Tory allegiances. Friends of Jeremy Hunt, the culture secretary, who made the appointment, say that he has picked a figure who has amply demonstrated his readiness to disagree with his own party on issues of principle. Lord Patten has his work cut out to placate both camps.

Even more pressingly, the BBC is facing a funding squeeze, which has necessitated a big contraction of the World Service's output and other economies. The outgoing chairman, Sir Michael Lyons, believes that the "salami slicing" of activity has reached its limit, and that the BBC must now consider sacrificing whole services or television networks. How Lord Patten views this dilemma might be decisive.

Then there is the pressure from the Beeb's commercial rivals, not least Rupert Murdoch, who among other complaints argue that the corporation has distorted the publishing and internet market, by investing in ventures outside conventional broadcasting. There are also perpetual wrangles over the (inflated) pay of presenters. Allies of Lord Patten say that he will take a stern view of the BBC's impact on media rivals-and that anyone who thinks he will shy away from inconvenient subjects "has another thing coming."

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Council spending

The kindest cut

Feb 24th 2011 | *CANTERBURY AND MAIDSTONE* | from the print edition

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Differing approaches and responses to the local-authority spending squeeze

THEY are the best of cuts; they are the worst of cuts. Depending on where you go and whom you believe, impending local-authority spending reductions are being carried out with the sensitivity of careful surgery-or of a blunt axe, allegedly wielded to embarrass the government.

Local authorities' Whitehall grants are to be slashed by 27% in real terms by 2014-15, beginning with a cut of 10% this coming year. Arguments about how the squeeze should be implemented are growing as town halls settle their budgets for 2011-12. Eric Pickles, the communities secretary and formerly leader of Bradford council in his native Yorkshire, has complained that some councils are implementing headline-grabbing front-line cuts, rather than focusing on internal economies, better procurement and trimming bureaucracy. (Mr Pickles wants the highest-paid council leaders to reduce their own salaries. Few have so far agreed.)

The arguments are reminiscent of the bitter, politicised stand-off over finance between the Thatcher government of the 1980s and local authorities. That isn't a comparison that the coalition, with its emphasis on localism, is keen on.

To help make their case, the Conservatives are circulating comparisons between neighbouring councils, intended as parables of differing approaches. One contrast is between Labour-controlled Manchester and adjacent, Tory-controlled Trafford in north-west England. Manchester has provocatively-in Mr Pickles's view-published a list of threatened services including libraries, leisure centres and youth services. He praises Trafford for saving pound4.3m through procurement and more through efficient management.

Manchester council retorts that it has worse poverty than more prosperous, suburban Trafford. It points out that councils that are more reliant on central funding are set to suffer more than those who can supplement their income from other local sources. Sir Richard Leese, leader of Manchester council, complains that the cuts are "targeted" on poorer areas and will hit social-care programmes for the vulnerable. His council will take a pound109m cut in its grant in 2011-12, rising to pound170m the year after: "Next year alone, the scale of our cuts is nine times those of Trafford," he says. "It's not a sensible comparison."

Not all councils facing big reductions, however, are squealing. In some places, a new breed of civic leaders sees an opportunity in seeming to be tough managers in lean times. Trafford council has rejected protests about its plans to jettison staff and close a care home. Meanwhile, Paul Carter, the leader of Kent's Tory-led county council, describes the economies he is making in the face of a pound58m cut to its grant as "doing our bit". With the budget paper still fresh off his office printer, Mr Carter is upbeat: "We will achieve this by doing and buying things differently and being more entrepreneurial. The impact on services will be very small."

Still, Kent council concedes that in future it will employ fewer staff to deliver support services for vulnerable people and will reduce funding for homeless hostels, women's refuges and sheltered housing. Some critics say that sort of approach contradicts the coalition government's stated commitment to "fairness".

Yet the toughest resistance, some officials confide, comes from "householder activism"-code for middle-class protest-rather than the poor. Having previously provided free sacks for recycling paper, Canterbury council in Kent recently decreed that residents must pay for the sacks themselves. Local papers promptly launched a "sacks appeal", widely supported by readers-and forced a retreat. An unequivocally kind cut is hard to find.

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Manufacturing and exports

Jurassic business park

Exports are the economy's best hope-and nimble exporters are looking to China and elsewhere

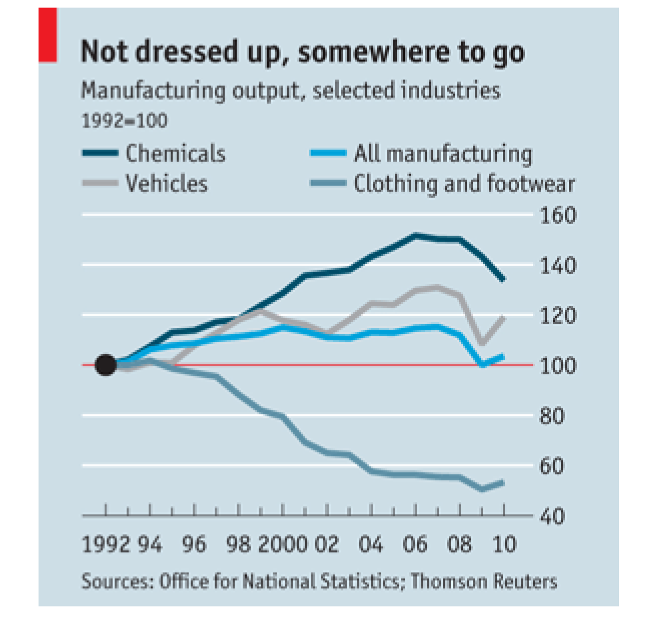


Not your average smokestack

"WE TRY to tell young people that manufacturing isn't messy," says Mark Wallis, as he walks past the purring machinery at Superior, which makes the rubber O-rings used in plumbing and mechanical devices. The firm, based in soot-free Wimborne in Dorset, employs 160 people on an annual turnover of pound24m, half of it from foreign sales. Germany is its main export market.

Superior is a type of firm that has supposedly disappeared from Britain. It specialises in designing and testing synthetic rubber compounds. The kind of seal required will depend on the stress and corrosion it has to withstand. The firm is not just an ideas factory: the O-rings are manufactured on-site, too. That way, says Mr Wallis, the business is able to ensure quality and a speedy response to customer needs.

Dorset is a rural county, famous more for its Jurassic coast than whizzy manufacturing. Yet Britain's economic fortunes are pinned on small, export-oriented enterprises of this kind, often found in unlikely places. The prospects for consumer spending look grim. Inflation and tax rises are cutting into already-feeble pay rises; many householders are more minded to pay off debts than to splash out. Public spending is being slashed. That leaves foreign demand as the likeliest motor of GDP growth. The 20% fall in the trade-weighted value of sterling since late 2007 ought to help firms price their exports more appealingly.



Set against that hope are worries that business lacks the clout, skills and credit to thrive. Manufacturing is scarcely bigger than 20 years ago, and its share of the economy has fallen to 12%, lower than in most rich countries. This in part reflects the decline of industries in which Britain no longer has an edge. Production of clothing and footwear, for instance, has almost halved since 1992. But the output of goods less exposed to low-cost competition, such as cars and chemicals, has grown (see chart). Gauges of export orders and investment are now at their highest since the mid-1990s, says the CBI. The hope is that industry is lean rather than merely puny.

Another example of exporting prowess is TDSi, a small Dorset firm that designs access-control systems for offices, airports and rail networks. Sensing an opportunity in export markets, John Davies, the managing director, bought the Poole-based firm in 2005. He closed a division that supplied kit for self-service photocopiers, cutting the workforce by more than half. Revenues fell by only 15%. They are now rising at a double-digit rate on the back of sales to Asia, where Mr Davies used to work. "Our exports were 25% of sales; they are now 50% and will be 70%," he says.

Fast-growing China is a key market. This month TDSi won a contract to make control equipment, readers and software for 12 subway stations in Beijing, having already supplied kit for metro systems in Shanghai and Tianjin. It can compete with much larger outfits, such as Siemens and Honeywell, says Mr Davies, because it can closely tailor products to its customers. Unlike Superior, TDSi does not make the stuff it designs. But it is assembled by British contractors rather than in China. Such firms are rather good at making specialist gear to order in small or medium-sized batches. So good, in fact, that fastidious German manufacturers are often clients.

Asia now accounts for the bulk of the sales of DEK, a firm that makes machines used to print circuit boards and the photovoltaic cells in solar panels. Though it has offices abroad and a plant in China, all of DEK's engineering is carried out at its Weymouth headquarters, where a third of its 1,000-strong global workforce are employed. DEK has the knack of reinvention, also a hallmark of the *Mittelstand*, the smallish firms behind Germany's manufacturing might. It started its solar enterprise three years ago but that now accounts for half of its business. Like bigger companies such as Rolls-Royce, it sells services to go with its machines.

Grip and grin

In fact, a weaker currency often means less to small businesses than the strength of the economies they export to. DEK's input costs and sales are largely based in dollars, says John Knowles, its chairman. Sterling's fall is also a mixed blessing for Superior. The machines used to mould, finish and check its O-rings are made in continental Europe, so have become dearer just when the firm is expanding. The cheaper pound has, however, increased profit margins at less capital-intensive outfits such as TDSi. It gives such firms leeway to put in keener bids for contracts where there is a chance of repeat business.

The risk is that tight planning laws, miserly banks and skill shortages will limit growth and offset any benefit from a weaker pound. But nimble and determined firms can surmount these obstacles. Superior has opened a new plant close to its main factory. Mindful of the scarcity of commercial land, it made repeated inquiries about the site before the owner agreed to sell it. It is laying the ground for future recruitment by bolstering links with local schools and seeking apprentices. DEK runs its own training scheme for school-leavers. As for finance, Mr Davies at TDSi reckons companies could do more to help banks understand their business. He updates his bankers every month on the firm's numbers so there are no surprises.

Can government help? Plans to revive government-backed export-credit insurance for small firms are welcomed. But what manufacturers really seem to crave is what Mr Knowles calls "recognition support", to help open doors to new markets. A grip-and-grin photo opportunity at Downing Street would work wonders for the image of many small manufacturers, at home as well as abroad.

Bagehot

Lovely-jubbly. Tally-ho!

Feb 24th 2011 | from the print edition

The prime minister tries-and fails-to find a new "third way" in foreign policy



TO BE frank, it is not certain that every local recognised David Cameron when he staged a walkabout in Cairo on February 21st, becoming the first foreign leader to visit Egypt since a popular uprising toppled Hosni Mubarak. Reporters heard friendly cries of "Cameron" and "welcome" but also-more confusingly-shouts of "America" as the prime minister strolled around the crucible of those protests, Tahrir Square.

That is now rather a giddy place, crammed with beeping traffic, flag-clutching families and groups of political pilgrims, taking each other's photographs in front of sand-coloured tanks still guarding the square's fringes. "Are you happy now?" Mr Cameron asked a teenage boy whose face was painted in the colours of the Egyptian flag. The boy proving happy but silent, Mr Cameron settled for a handshake. An older relative stepped in to inform curious reporters that the youth "loves the new freedom", adding, "Lovely-jubbly, tally-ho, tally-ho."

Nobody laughed. For one thing, the relative's English was impressively better than the travelling press pack's Arabic. For another, with its blend of optimism tempered by old-fashioned Englishness, the phrase captured Mr Cameron's foreign-policy instincts rather acutely.

The revolt in the Arab world represents an early test for a prime minister who is still a diplomatic new boy. His visit to Egypt was a hastily arranged affair, bolted on to the start of a long-planned commercial tour of Gulf Arab allies-and made in the company of a plane-load of British business chiefs, among them the representatives of eight defence and aerospace firms, prompting press headlines at home about Mr Cameron preaching peace in the company of arms-dealers. He used the trip to outline a credo that combines a heavy emphasis on trade and national security with a more mysterious philosophy that Mr Cameron calls "liberal conservatism".

When it comes to foreign affairs, Mr Cameron is clear about what he is not. He says he is not a "naive neoconservative" who believes that democracy can be dropped by plane from 40,000 feet (take that, George Bush and Tony Blair). Whether addressing generals in Egypt, emirs in Kuwait or students in Qatar, Mr Cameron called elections "important", but added that it was not for him to "pontificate" about how other governments respond to the aspirations of their people. Democracy is a "journey", he said. It involves patient work on building-blocks such as free speech, the right to free assembly and the rule of law.

If that sounded a bit mealy-mouthed, Mr Cameron was equally keen to denounce a second, older diplomatic tradition. He called this tradition the "calculating" view that "Arabs or Muslims can't do democracy". This, he said correctly, "borders on racism". Sweeping aside the jaundiced counsels of generations of colonial governors and suave Foreign Office types, he said the idea that Britain must choose between stability and political freedoms in the Muslim world was a "false choice". Further defying the Camel Corps, as Whitehall's Arabists are derisively dubbed, Mr Cameron suggested that popular protests in Tunisia, Egypt and Bahrain were evidence that "denying people their basic rights does not preserve stability, rather the reverse".

In Cairo Mr Cameron met representatives of the groups that led the peaceful uprising against Mr Mubarak. He called them "hugely inspiring". Perhaps swept up by the historical poetry of young people facing down a tyrant's thugs, Mr Cameron compared the young protesters of Cairo to other peaceful movements for change, from the velvet revolutions in central and eastern Europe to the civil-rights struggle in America.

That enthusiasm is attractive. Show Mr Cameron images of soldiers beating young people, and he does not hesitate, sources close to him say: there is a right and a wrong side, and he would like Britain to be on the right one. Listen carefully, and he admits that big risks lurk: a slide into violent extremism, sectarian conflict or entrenched military power. But early signs-the bravery of the young, or the refusal of the Egyptian army to turn on the people-suggest this story could have a hopeful ending, he thinks.

No third way in the desert

The problem is that exactly that same enthusiasm undermines Mr Cameron's claims to have plotted a new "third way" between Blair-ish naivety and Camel Corps cynicism. Ultimately, his approach to the crisis in the Arab world is optimism posing as a strategy. Mr Cameron asserts that stability and freedom are not in opposition, and that Britain need not choose between its interests and its values. Yet-depending on events-his government might indeed be forced to choose. Even watering those values down, and defining basic rights so broadly that he could call a semi-free petro-monarchy like Kuwait a "democracy" without blushing, might not get him off the hook.

If his hunches are right, and greater freedoms prove compatible with stability, then Mr Cameron is actually offering a sort of low-church, fair-weather version of neoconservatism: a hopeful faith that slow, patient steps on a journey towards democracy will keep the lid from blowing off the Arab street. If events go badly, then he will doubtless emerge as a man with a firm sense of national interests. At no point on his tour, for example, could he be persuaded to answer questions about repression in Saudi Arabia, and how that fits his world view.

Aides never tire of stressing that Mr Cameron is a pragmatist, in foreign policy as much else. His first responses to the Arab crisis suggest a nuance: that he would rather avoid drawing on those reserves of pragmatism, at least too deeply, if the chance of idealism presents itself. That is to his credit. But his liberal conservatism is a bet on events, not a reinvention of foreign policy.

Economist.com/blogs/bagehot

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Internship

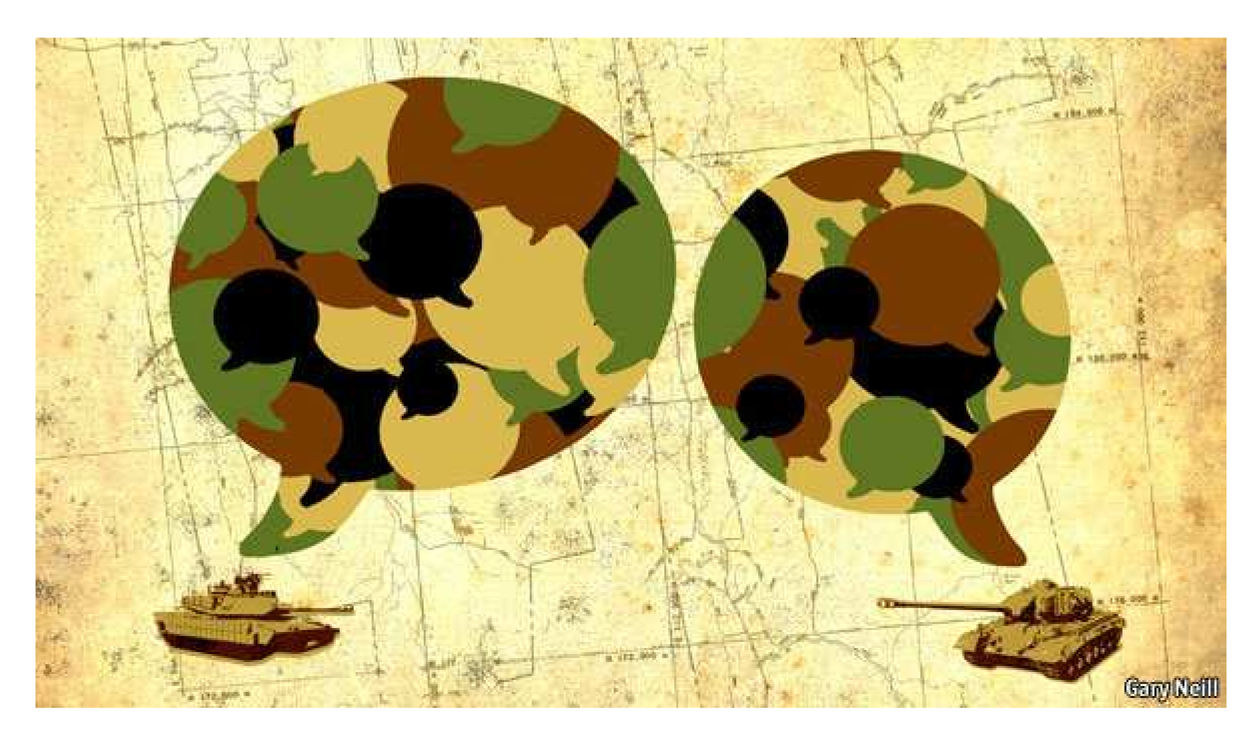
Feb 24th 2011 | from the print edition

Military-to-military relationships

The ties that bind

Feb 24th 2011 | from the print edition

America's armed forces may sometimes succeed where its diplomats cannot



NOBODY knows whether Egypt's army will steer the country to free and fair elections. But there is less doubt about its role in minimising conflict during the demonstrations that eventually toppled Hosni Mubarak, the country's president. The army would not use lethal force against the crowds in Tahrir Square. Instead they provided protesters with some defence against the regime's thugs.

Critics of America at home and in the region lamented the Obama administration's apparent powerlessness during the unrest in Cairo. But some think the close ties between America's and Egypt's armed forces played a critical role in helping the new military council become a force for social cohesion rather than repression. How far do other, similar relationships between military establishments provide a back-channel when conventional diplomacy is not enough?

The cornerstone of America's "mil-mil" relationship with Egypt is the $1.3 billion in annual foreign military financing that it has handed over since 1979 as "untouchable compensation" for Egypt's peace with Israel. Over 30 years the Egyptian armed forces have replaced Soviet-era weapons with top-notch American kit, such as F-16 fighters and M1 tanks. How much influence this buys the Americans is debatable: they tread a fine line between giving advice and appearing to dictate. But the example of Iran, which saw its advanced American weapons rapidly fall into disrepair after the fall of the Shah, is a warning of what could happen to Egypt if ties with America go irretrievably wrong.

The links are personal too. While demonstrations in Egypt escalated there was frequent contact between the secretary of defence, Robert Gates, and his Egyptian counterpart, Field-Marshal Muhammad Tantawi. The chairman of the joint chiefs of staff, Admiral Mike Mullen, was also talking to the Egyptian army chief, Lieutenant General Sami Enan, who had been at the Pentagon only in late January for discussions about combined training.

Mr Gates and Admiral Mullen were urging their Egyptian chums to do exactly what they so far have done-gently shove Mr Mubarak to the exit, restore calm and preside over an orderly transition while reiterating support for peace with Israel. Major General Robert Scales, a retired commandant of the US Army War College, argues that the passage of large numbers of the best and brightest Egyptian officers through American war colleges has suffused the army with American values. He recently said: "They learn our way of war...but they also learn our philosophies of civil-military relations."

America also has close military ties with Pakistan. But that relationship is more troubled. Admiral Mullen has worked hard to reforge links with Pakistan after they splintered in the 1990s due to the end of the cold war and sanctions triggered by the country's nuclear programme. During his three and a half years as chairman of the joint chiefs, Admiral Mullen has flown to Pakistan well over 20 times for meetings with the head of the army, General Ashfaq Kayani, in an effort to build a personal rapport with the man widely seen as the most powerful in the country.

Last year, in a speech to Pakistani officers at the National Defence University in Islamabad, Mr Gates said that the severing of ties between the two countries' armed forces had been a "grave strategic mistake" that had "tainted the perception of the United States in Pakistan." As a result, the two countries had struggled "to work together to confront the common threat of extremism". Mr Gates believes that America is still paying a heavy price for having had no military dealings with a generation of Pakistani officers who are now reaching the top.

Pakistan's stance towards Islamist extremism remains ambivalent. Plenty of evidence suggests that the Pakistanis are happy to offer America limited military co-operation while providing safe havens for Afghan Taliban insurgents. But Admiral Mullen believes his bond with General Kayani (and the promise of a $2 billion military-aid package) has brought the countries closer together. He points to the Pakistani army's campaigns against insurgents in the tribal areas of Swat, Bajaur and South Waziristan since 2009 as evidence that the military relationship is working.

Despite their differences, America's military ties with Egypt and Pakistan have a lot in common. Both countries have relatively underdeveloped civil societies. In both, the army is the most respected institution in the country and has some capacity for autonomous policy-making. And in both instances, America can lubricate the relationship by providing modern weaponry and at least some of the money to buy it. The more democratic a country, the less influence is likely to be exerted through military connections. An example is Turkey, which was bound closely to America when its generals were running the show, but which has become a more awkward ally since the rise of the moderately Islamist Justice and Development (AK) Party.

Of all the links between armed forces, the most complicated are those with strategic rivals. Mr Gates argues that a military relationship is not a reward for good behaviour but an instrument of statecraft that benefits both sides-even when there is friction. This seemed to work with Russia. After the shock of its invasion of Georgia in 2008, less than a year passed before Admiral Mullen and his Russian equivalent, General Nikolai Makarov signed a new framework for mutual engagement.

On the other hand, Mr Gates worries about China's tendency to break off its ties with the American military whenever America does something it dislikes. In January last year the Chinese suspended military exchanges after America said it would sell arms to Taiwan. Mr Gates reckons reliable links with the People's Liberation Army helps to "reduce miscommunication, misunderstanding and the risks of miscalculation." And he made some progress on his visit to Beijing last month.

But the Chinese are not wholly convinced that close military ties with America are to their advantage. They fear that Chinese officers on exchange visits will be intimidated by American military might, whereas American officers doing the same thing will learn too much about China's shortcomings. The Chinese think of military co-operation as the fruit of mutual trust. Mr Gates sees it as a way to establish trust when it is lacking. It is hard to bridge that gap. But Mr Gates is surely right to believe that no form of diplomacy succeeds without consistency, patience and long-term investment.

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Political systems

The fashion to be federal

Feb 24th 2011 | from the print edition

In federations, some votes count more than others. Is the price worth paying?



...with occasional exceptions

WHAT short rallying-cry sums up the hopes of people who risk their lives-anywhere from Tunis to Cairo to Rangoon-because they believe in free, universal suffrage? In years past, it was "one man, one vote". That slogan was heard in apartheid South Africa, and in the 1960s in Northern Ireland, where Catholics said a property-based vote for local councils favoured Protestants.

The formula has since been corrected to "one person one vote" (OPOV, as wonks call it)-and the ideal itself has been challenged. Among campaigners for political change, it is agreed that universal suffrage is not enough to give power to the people. Other things, like the rule of law, are needed too. And less obviously, most federal systems violate the OPOV principle by giving some votes more weight than others. That is important because over a third of humanity lives in countries that aspire to be both democratic and federal. And many supporters of federalism say that deviating from OPOV is a price worth paying in order to make sure that all elements in a diverse country feel included.

According to Rupak Chattopadhyay, a Canadian scholar, federations (and the constitutional anomalies that go with them) are desirable in countries that are large or ethnically mixed or both. He thinks that Egypt, despite its history of strong state power, may now need to become decentralised to cope with the needs of around 84m people; even a small country like Libya may need a federal arrangement to accommodate its mixture of tribes and local interests. He is shortly to become president of the Forum of Federations, a body that is based in Canada and backed by nine governments.

Why is the tie between federalism and democracy so awkward? In most federations the units have formally equal status, regardless of population, so voters in small units fare better. Thus the 544,270 residents of Wyoming have two senators-the same as the 37m people of California. In Australia the 507,600 people of Tasmania have the same weight in the upper house as the 7m who live in New South Wales. In rich, consensus-based democracies, such anomalies are often accepted. They may be seen as an inevitable legacy of the past; when political units have freely come together, as the 13 original American colonies did, they keep their status as building blocks of the union. But the perverse electoral system of the European Parliament (to which the 1.2m voters of Northern Ireland elect three members, whereas 500,000 Greek-Cypriot voters send six) cannot claim the veneer of age. After a scolding over its democratic deficiencies from Germany's

constitutional court, the Euro-legislature has commissioned a study of federal systems, and the associated electoral quirks, all over the world.

As research at Queen's University Belfast has shown, large deviations from OPOV are the norm in newly democratic federations, including ex-war zones where outsiders have designed systems to hold divided societies together. These systems are often very contentious. Iraq's constitution is decentralising enough to please Shia and Kurdish voters, but anathema to the once-dominant Sunni Muslims. The Bosnian constitution-another text with American input-is a vast balancing act. Nearly half the country forms a "Serb Republic" and the rest is a mini-federation where the Croat minority does well. Many Bosnian Muslims want a unitary state.

The UN plan for Cyprus, rejected by the Greek-Cypriots in 2004, would have created a loose federation, with Turkish-Cypriots getting a say that exceeded their numbers. A travesty of democracy, some Greek-Cypriots said. Others said that some violation of OPOV was inevitable in any form of the "bizonal, bicommunal federation" that both sides had accepted.

Iraq and Bosnia were under huge external pressure to accept arrangements that one or more groups disliked. It worked. But how long can a federation based on electoral oddities last if local parties truly don't want it? Perhaps only as long as outsiders keep the screws on.

A special report on feeding the world

The 9 billion-people question

Feb 24th 2011 | from the print edition

The world's population will grow from almost 7 billion now to over 9 billion in 2050. John Parker asks if there will be enough food to go round



THE 1.6-hectare (4-acre) Broadbalk field lies in the centre of Rothamsted farm, about 40km (25 miles) north of London. In 1847 the farm's founder, Sir John Lawes, described its soil as a heavy loam resting on chalk and capable of producing good wheat when well manured. The 2010 harvest did not seem to vindicate his judgment. In the centre of the field the wheat is abundant, yielding 10 tonnes a hectare, one of the highest rates in the world for a commercial crop. But at the western end, near the manor house, it produces only 4 or 5 tonnes a hectare; other, spindlier, plants yield just 1 or 2 tonnes.

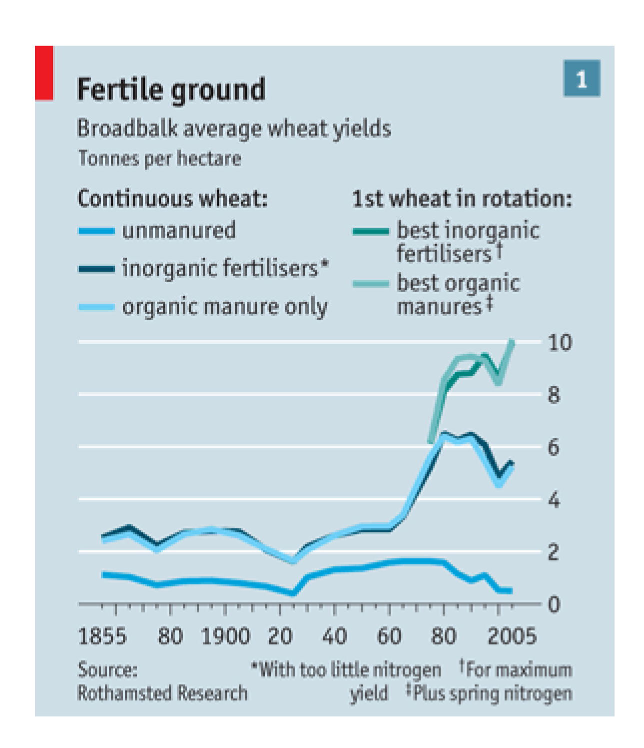
Broadbalk is no ordinary field. The first experimental crop of winter wheat was sown there in the autumn of 1843, and for the past 166 years the field, part of the Rothamsted Research station, has been the site of the longest-running continuous agricultural experiment in the world. Now different parts of the field are sown using different practices, making Broadbalk a microcosm of the state of world farming.

The wheat yielding a tonne a hectare is like an African field, and for the same reason: this crop has had no fertiliser, pesticide or anything else applied to it. African farmers are sometimes thought to be somehow responsible for their low yields, but the blame lies with the technology at their disposal. Given the same technology, European and American farmers get the same results.

The wheat bearing 4 or 5 tonnes a hectare is, roughly, like that of the Green Revolution, the transformation of agriculture that swept the world in the 1970s. It has been treated with herbicides and some fertilisers, but not up to the standard of the most recent agronomic practices, nor is it the highest-yielding semi-dwarf wheat variety. This is the crop of the Indian subcontinent and of Argentina.

The extraordinary results in the centre of the field are achieved by using the best plants, fertilisers, fungicides and husbandry. The yield is higher than the national average in Britain, and is as good as it gets.

Seeds of doubt



But the Broadbalk field shows something else. Chart 1 tracks its yields from the start, showing how the three different kinds of wheat farming-African, Green Revolution and modern-have diverged, sometimes quite suddenly: in the 1960s with the introduction of new herbicides for Green Revolution wheat, and in the 1980s with new fungicides and semi-dwarf varieties. Worryingly, though, in the past 15 years the yields of the most productive varieties of wheat in Broadbalk have begun to level out or even fall. The fear is that Broadbalk may prove a microcosm in this respect, too.

At the start of 2011 the food industry is in crisis. World food prices have risen above the peak they reached in early 2008 (see chart 2). That was a time when hundreds of millions of people fell into poverty, food riots were shaking governments in dozens of developing countries, exporters were banning grain sales abroad and "land grabs" carried out by rich grain-importing nations in poor agricultural ones were raising awkward questions about how best to help the poor.



This time, too, there have been export bans, food riots, panic buying and emergency price controls, just as in 2007-08. Fears that drought might ruin the current wheat crop in China, the world's largest, are sending shock waves through world markets. Discontent over rising bread prices has played a part in the popular uprisings throughout the Middle East. There are differences between the periods, but the fact that agriculture has experienced two big price spikes in under four years suggests that something serious is rattling the world's food chain.

The food industry has been attracting extra attention of other kinds. For years some of the most popular television programmes in English-speaking countries have been cooking shows. That may point to a healthy interest in food, but then again it may not. The historian Livy thought the Roman empire started to decay when cooks acquired celebrity status.

At a meeting of the Group of Eight (G8) industrial countries in 2009 the assembled leaders put food alongside the global financial crisis on their list of top priorities, promising to find $20 billion for agriculture over three years. This year the current president of the Group of 20 (G20), France's Nicolas Sarkozy, wants to make food the top priority. The Gates Foundation, the world's richest charity, which had previously focused on health and development generally, started to concentrate more on feeding the world. At last month's World Economic Forum, a gathering of businesspeople and policymakers in Davos, 17 global companies launched what they described as "a new vision for agriculture", promising to do more to promote markets for smallholders-a sign of rising alarm in the private sector.

Anything for dinner?

Some of this public and political attention has been sporadic, but it is justified. An era of cheap food has come to an end. A combination of factors-rising demand in India and China, a dietary shift away from cereals towards meat and vegetables, the increasing use of maize as a fuel, and developments outside agriculture, such as the fall in the dollar-have brought to a close a period starting in the early 1970s in which the real price of staple crops (rice, wheat and maize) fell year after year.

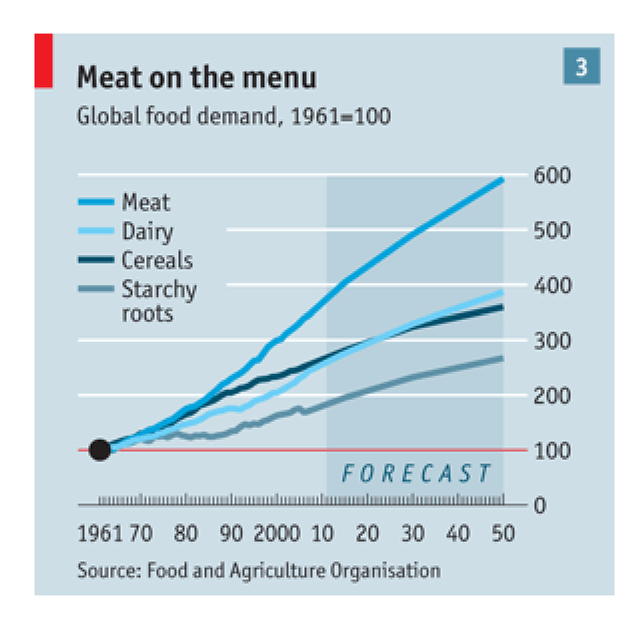
This has come as a shock. By the 1990s most agricultural problems seemed to have been solved. Yields were rising, pests appeared under control and fertilisers were replenishing tired soil. The exciting areas of research in life sciences were no longer plants but things like HIV/AIDS.

The end of the era of cheap food has coincided with growing concern about the prospects of feeding the world. Around the turn of 2011-12 the global population is forecast to rise to 7 billion, stirring Malthusian fears. The price rises have once again plunged into poverty millions of people who spend more than half their income on food. The numbers of those below the poverty level of $1.25 a day, which had been falling consistently in the 1990s, rose sharply in 2007-08. That seems to suggest that the world cannot even feed its current population, let alone the 9 billion expected by 2050. Adding further to the concerns is climate change, of which agriculture is both cause and victim. So how will the world cope in the next four decades?

That question forms the backbone of this special report. The answer to it cannot be a straightforward technical or biological one because food is basic to life. In the Maya creation myth, the first humans were made of maize dough. In the slang of Marathi, a language of west central India, the man on the street is known as "fried bread"-after the workers' favourite snack.

Because food is so important, agriculture-more than any other form of economic activity-is expected to achieve a series of competing and overlapping goals that change over time and from place to place. The world looks to farmers to do more

than just produce food. Agriculture is also central to reducing hunger (which is not quite the same thing) and provides many people's main route out of poverty. Food is probably the biggest single influence on people's health, though in radically different ways in poor countries and in rich ones, where the big problem now is obesity. Food is also one of the few pleasures available to the poorest. In the *favelas* (slums) of Sao Paulo, the largest city in South America, takeaway pizza parlours are proliferating because many families, who often do not have proper kitchens, now order a pizza at home to celebrate special occasions.



Given these conflicting aims, it is not surprising that the food crisis has produced contradictory accounts of the main problem and radically different proposals for solving it. One group is concerned mainly about feeding the world's growing population. It argues that high and volatile prices will make the job harder and that more needs to be done to boost supplies through the spread of modern farming, plant research and food processing in poor countries. For those in this group-food companies, plant breeders and international development agencies-the Green Revolution was a stunning success and needs to be followed by a second one now.

The alternative view is sceptical of, or even downright hostile to, the modern food business. This group, influential among non-governmental organisations and some consumers, concentrates more on the food problems of richer countries, such as concerns about animal welfare and obesity. It argues that modern agriculture produces food that is tasteless, nutritionally inadequate and environmentally disastrous. It thinks the Green Revolution has been a failure, or at least that it has done more environmental damage and brought fewer benefits than anyone expected. An influential book espousing this view, Michael Pollan's "The Omnivore's Dilemma", starts by asking: "What should we have for dinner?" By contrast, those worried about food supplies wonder: "Will there be anything for dinner?"

This special report concentrates on the problems of feeding the 9 billion. It therefore gives greater weight to the first group. It argues that many of their claims are justified: feeding the world in 2050 will be hard, and business as usual will not do it. The report looks at ways to boost yields of the main crops, considers the constraints of land and water and the use of fertiliser and pesticide, assesses biofuel policies, explains why technology matters so much and examines the impact of recent price rises. It points out that although the concerns of the critics of modern agriculture may be understandable, the reaction against intensive farming is a luxury of the rich. Traditional and organic farming could feed Europeans and Americans well. It cannot feed the world.

Listen to an interview with the author of this special report

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A special report on feeding the world

How much is enough?

Feb 24th 2011 | from the print edition

The answer is less straightforward than it seems



Hooked on meat

IN HIS 1981 essay, "Poverty and Famines", Amartya Sen, an Indian economist, argued that the 1943 Bengal famine, in which 3m people died, was not caused by any exceptional fall in the harvest and pointed out that food was still being exported from the state while millions perished. He concluded that the main reason for famines is not a shortage of basic food. Other factors-wages, distribution, even democracy-matter more.

In 1996 the United Nations' Food and Agriculture Organisation (FAO) estimated that the world was producing enough food to provide every man, woman and child with 2,700 calories a day, several hundred more than most adults are thought to need (around 2,100 a day). The *Lancet*, a medical journal, reckons people need no more than 90 grammes of meat a day. On average they eat more than that now. As Abhijit Banerjee of the Massachusetts Institute of Technology says, "we live in a world that is capable of feeding every person that lives on the planet."

Indeed, the world produces more than just enough to go round. Allowing for all the food that could be eaten but is turned into biofuels, and the staggering amounts wasted on the way, farmers are already producing much more than is required-more than twice the minimum nutritional needs by some measures. If there is a food problem, it does not look like a technical or biological one.

So why worry about producing more food? Part of the answer is prices. If output falls below demand, prices will tend to rise, even if "excess" calories are being produced. That happened in 2007-08, and is happening again now. Over the past four years prices have been more volatile than they have been for decades. This is bad for farmers (who are left not knowing how and where to invest) and worse for consumers, especially the poor, who risk suddenly being unable to afford basic food.

Another part of the answer is that it is hard to improve distribution and reduce poverty. The world may indeed be growing masses of calories. But the food is not where it needs to be, and biofuel policy is hard to shift (see article). Pushing up supplies may be easier than solving the distribution problems.

But it will still be a daunting task. On one reckoning, in order to keep up with population growth farmers will have to grow more wheat and maize over the next 40 years than was grown in the previous 500. The balance between what is consumed and what farmers produce matters a great deal.

So how do you keep that balance? Start with consumption, the side of the equation that can be forecast with some accuracy. The forecast rise in world's population, from just under 7 billion at the start of 2011 to just over 9 billion in 2050, is the equivalent of two extra Indias. If you include the 1 billion people who are now going hungry, the additional mouths to feed over the next 40 years add up to three extra Indias.

It is not an impossible task. The increase in world population by 2050 will be around 30%, less than in the 40 years to 2010, when it rose by over 80%. Consumption of wheat, rice and maize roughly tracks population growth but at a higher

level, so demand for them will add about a billion tonnes to the 2 billion produced in 2005-07. That is much less than during the previous 40 years, when cereal production rose by 250%.

True, the headline numbers somewhat underestimate the problem. Families have been getting smaller for decades, so there are proportionately fewer children in developing countries than there used to be. Many of those countries are benefiting from a "demographic dividend": an unusually large proportion of young adults in the population, who work hard but eat more than children or older people.

Rise of the carnivores

Moreover, an increasing proportion of the population is living in cities, and dollar for dollar city-dwellers eat more food and especially more processed foods than their country cousins. They also tend to be richer and able to afford pricier food, such as meat. So meat demand will rise strongly. In 2000, 56% of all the calories consumed in developing countries were provided by cereals and 20% by meat, dairy and vegetable oils. By 2050, the FAO thinks, the contribution of cereals will have dropped to 46% and that of meat, dairy and fats will have risen to 29%. To match that soaring demand, meat production will need to increase to 470m tonnes by 2050, almost double its current level. Output of soyabeans (most of which are fed to animals) will more than double, to 515m tonnes.

Overall, the FAO reckons, total demand for food will rise about 70% in the 44 years from 2006 to 2050, more than twice as much as demand for cereals. But that is still less than half as much as the rise in food production in the 44 years from 1962 to 2006. So according to the FAO's Kostas Stamoulis, producing enough food to feed the world in the next four decades should be easier than in the previous four.

Should be, but probably won't be. Increasing food supplies by 70% in the next 40 years may prove harder than it was to raise them by 150% in the previous 40. The main reason: problems with yields.

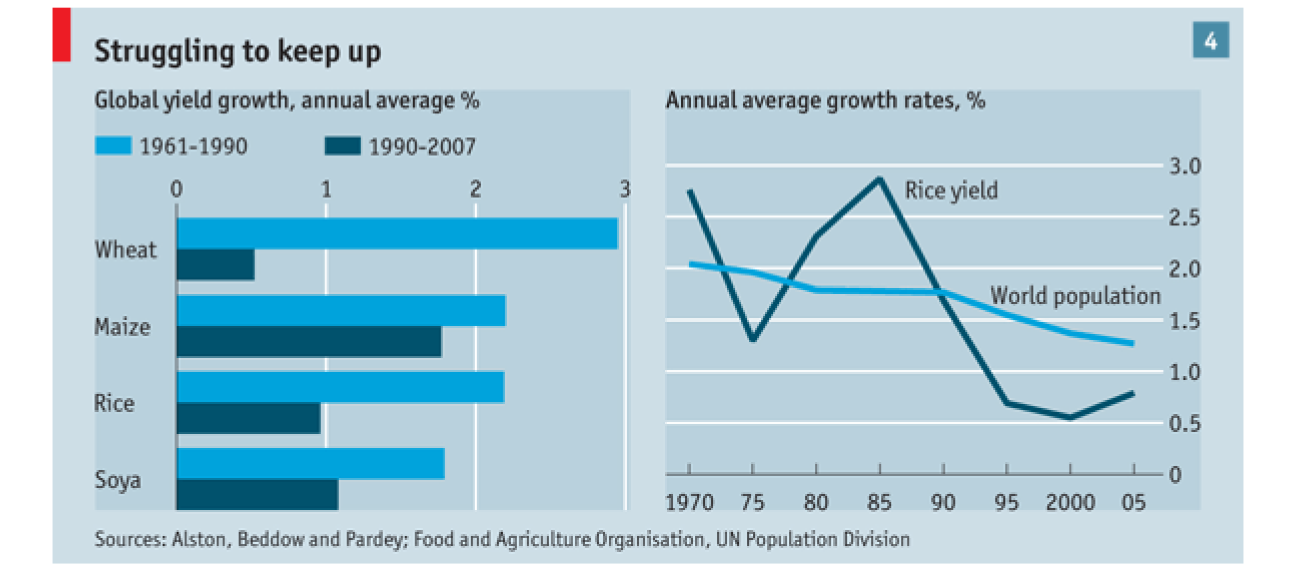
Yield-tonnes per hectare, bushels per acre or whatever-is the traditional gauge of agriculture's performance. And the growth in yields has been slowing down, from about 3% a year for staple crops in the 1960s to around 1% now.

Yield curb

The earlier period was that of the Green Revolution, an exceptional time. Thomas Lumpkin, the head of CIMMYT, the UN's international wheat and maize research organisation, thinks that farmers in developing countries could often double their harvest by switching to Green Revolution seeds (many of which were developed at CIMMYT by the organisation's most eminent plant breeder, Norman Borlaug). Now, Mr Lumpkin reckons, the best current technologies could perhaps increase yields by 50%-still a lot, but not as spectacular as the earlier improvements. The low-hanging fruit has been plucked and eaten.

The Green Revolution threw resources at plant-breeding, which worked brilliantly. The new seeds enabled grains to absorb more fertiliser and water. But now there is not a lot more water to spare, and fertiliser usage in some places has already passed saturation point (see article), so a new Green Revolution will have to make even more efficient use of existing resources. The next 40 years will also have to deal with the potentially profound damage to farming from climate change, which in some parts of the world could reduce yields by one-third.

And disturbingly, for the first time since the Green Revolution, crop yields are growing more slowly than population (see chart 4). To be more exact: growth in population and demand for food have both slowed down, but crop yields have slowed more. Between 1961 and 1990 wheat yields were rising at nearly 3% a year. During that period the world's population was growing by an average of 1.8% a year. Between 1990 and 2007 population growth slowed down to 1.4%, but the rise in annual wheat yields slackened to 0.5%. The growth in rice yields between the two periods halved. Yields of mankind's two most important crops are now almost flat.



Some argue that these figures are not as worrying as they seem. After all, population growth is slowing and yields of some crops, notably maize, are still rising at a steady pace. And the growth in yields may have slowed not because agricultural technology has hit a wall but because farmers are cutting inputs for environmental reasons, or because they are focusing on quality more than quantity. Indeed, in America farm output is rising but the use of fertilisers and other inputs has been cut back. Breeders have lately been working on wheat for extra protein, not just yield.

If this is the correct explanation, farmers' overall productivity is still increasing, since they are using fewer inputs to get the same output. And that is what some researchers find. Keith Fuglie of the United States Department of Agriculture reckons that total factor productivity in world agriculture-a measure which includes capital, labour and other inputs-is still rising at a healthy 1.4% a year. This reflects a more efficient use of resources. And if farmers are choosing to reduce yields now, they could also push them back up again later.

Other researchers, however, think global productivity is indeed slowing down, especially outside China. According to a study using different definitions from Mr Fuglie's, growth in land productivity fell by over one-third between 1961-90 and 1990-2005, and growth in labour productivity fell by two-thirds. And as Mr Fuglie says, even if productivity is rising, it needs to rise more, from an annual gain of 1.4% to 1.75%, he thinks-a big leap. And though farmers might choose to increase yields later, their choice would depend partly on food prices rising more than prices of inputs such as fertilisers, which they may not (in 2007-08 fertiliser prices rose much more than food prices). So even if productivity is increasing-and that is not clear-on its own it is not enough.

And what if the slower rise in yields reflects something more fundamental, the approach of some sort of biological limit in plants? The worry is not that yields are flattening out in farmers' fields, where agronomic practices or the weather or any number of things may be responsible. It is that there may be a problem in breeders' fields where the potential of plants is tested. This possibility is controversial and many breeders reject it. But the idea should not be dismissed out of hand.



A fancier kind of maize

The Green Revolution had little to do with making plants bigger: rather, it produced higher yields by persuading more plants to grow in the same space and by getting them to put less effort into growing stalks and leaves and more into seedpods, the part people eat. The nagging fear is that both trends may be reaching a limit.

The number of maize plants in a hectare has risen from roughly 40,000 to 90,000 in the past half-century. There must come a point where plants can no longer be sardined any closer together, stalk crushed against stalk. Similarly, at some point it may no longer be possible to persuade plants to put ever more energy into seeds. In animals biological limits are already clear: turkeys are so bloated that they can no longer walk; chickens grow so quickly that they suffer stress fractures. Racehorse speeds have levelled out.

The evidence on whether plants are reaching similar limits is mixed. On the one hand, maize yields in rich countries are continuing to rise, thanks to huge investments by seed companies. A recent Australian study found cereal yields in India, Britain, and Australia are increasing by about 1% a year. Britain's government forecast in 2009 that wheat yields there would rise from 7.7 tonnes per hectare to 11.4 tonnes in 2025 and 13 tonnes in 2050.

On the other hand, trials at CIMMYT's principal wheat-breeding station at Obregon in Mexico indicate a slowdown in potential yield growth to only 0.4% a year. It is also notable that the latest research into plants is focused not on redistributing growth towards seeds but on making the whole plant bigger.

Yields may still be growing, but more slowly, and even that slower growth can no longer be taken for granted. The question is, how much do they need to grow to keep abreast of the growth in the world's population of about 1.2% a year?

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A special report on feeding the world

Plagued by politics

Feb 24th 2011 | from the print edition

Biofuels are an example of what not to do



The wrong shade of green

"THIS is the craziest thing we're doing," says Peter Brabeck, the chairman of Nestle. He is talking about government biofuels targets which require a certain proportion of national energy needs to be met from renewable fuels, most of them biofuels (ie, ethyl alcohol made from crops, usually maize or sugar).

The targets are ambitious. Brazil, Japan, Indonesia and the European Union all say biofuels must supply 10% of energy demand for transport by 2020. China's target for that date is 5%. America aspires to meet 30% of such needs from biofuels by 2030.

Because the energy market is worth vastly more than the market for food, even relatively small targets translate into huge demand for crops. Ethanol currently accounts for just 8% of America's fuel for vehicles, but it consumes almost 40% of America's enormous maize crop. World ethanol production increased fivefold between 2000 and 2010 but would have to rise a lot further to meet all the targets. The FAO reckons that, if this were to happen (which seems unlikely), it would divert a tenth of the world's cereal output from food to fuels. Alternatively, if food-crop production were to remain stable, a huge amount of extra land would be needed for the fuels, or food prices would rise by anything from 15-40%, which would have dreadful consequences.

Not all ethanols are the same. Brazil, the world's second-largest producer, makes its fuel mainly from sugar. Processing plants can go back and forth between ethanol and crystallised sugar at the flick of a switch, depending on prices. Brazil gets eight units of energy for every unit that goes into making it, so the process is relatively efficient and environmentally friendly. In contrast, American ethanol produces only 1.5 units of energy output per unit of input, but its inefficiency is underwritten by government subsidies and high tariff walls. American farmers say that government demand for ethanol is starting to abate, so the impact on maize supplies and prices is more modest now.

All the same, one of the simplest steps to help ensure that the world has enough to eat in 2050 would be to scrap every biofuel target. If all the American maize that goes into ethanol were instead used as food, global edible maize supplies would increase by 14%.

But that is not going to happen. Biofuels have not only diverted crops to fuel but have also diverted public subsidies to farmers without provoking too many objections. Governments are unlikely to abandon biofuels merely because they are inefficient and damaging. "We can't produce biofuels and feed the world's increased population," says Mr Brabeck. But for the moment we will have to.

A special report on feeding the world

No easy fix

Feb 24th 2011 | from the print edition

Simply using more of everything to produce more food will not work



Limits to growth

JOSE TOLEDO PISA looks out over the Cremaq farm in remote north-eastern Brazil. Thirty-tonne trucks have finished spreading lime fertiliser to reduce the acidity of the soil. He is about to start planting soya beans first developed by the Brazilian agricultural-research institution, Embrapa, that are suited to the sweltering climate (soyabeans were originally a temperate plant and did not grow well in the tropics). The computer in the farmhouse is checking the temperature, the water and the level of organic material in the soil. Five years ago much of this farm was scrubland. This spring Mr Pisa will reap around 3 tonnes of soyabeans per hectare.

Land, water, fertiliser: three basic components of farming. At Cremaq, Mr Pisa has harnessed new supplies of them to grow abundant crops. But is that the rule or the exception?

Try making deserts bloom

If crop yields are to match the rise in population, then some of them will have to go up dramatically. The world's population is growing at just over 1% a year, so-allowing something extra to feed animals because of rising demand for meat-staple yields will have to rise by around 1.5% a year. This may not sound much, but it is a great deal more than

current growth rates. CIMMYT reckons that, to keep prices stable, the growth in rice yields will have to increase by about half, from just under 1% a year to 1.5%; maize yields will have to rise by the same amount; and wheat yields will have to more than double, to 2.3% a year.

Since the 1960s the traditional way of growing more food-by ploughing more land-has been out of favour. That is partly for environmental reasons-much irreplaceable Amazon jungle has already been lost-and partly because many countries have used up all their available farmland. So though the population has soared, the supply of land has not.

However, the potential is not exhausted yet. The biggest agricultural success story of the past two decades has been Brazil, largely because it was able to increase its usable acreage by making its vast *cerrado* (savannah-like grassland) bloom. By reducing the acidity of the soil (as at Cremaq), Brazil has turned the *cerrado* into one of the world's great soyabean baskets.

A new study by the World Bank says the world has half a billion hectares of land with fewer than 25 people per square kilometre living on them (this excludes land on which farming would be impossible, such as deserts, forests and rainforests or the Antarctic). The area currently under cultivation is 1.5 billion hectares, so if all that extra land could be used it would represent an increase of one-third. In fact a lot of it either should be left alone for environmental reasons or would be too expensive to farm. But that would still leave plenty that could be useful for farming.

Most of it is concentrated in a few countries in Latin America, including Brazil and Argentina, and in Africa in the so-called "Guinea belt", a vast loop of land that stretches round the continent from west Africa to Mozambique. In 11 countries less than half the usable land is farmed. These countries could presumably boost food output by taking in some new land.

But estimates of land availability are contentious. Some put available virgin land at only 10-12% of the current total, not over 30%. The difference depends on cost and politics, not just the physical characteristics of the soil. The *cerrado* itself was once deemed useless for farming.

And some of this extra land is offset by soil erosion. Africa has some of the most exhausted soils in the world, with less than 1% of organic matter in them, half the level required for good fertility. For centuries African farmers allowed for this by letting the land lie fallow for eight or nine years after a harvest. But with more people to feed they have to squeeze in more harvests, and the soil is no longer recovering.

The chemistry of the soil-the presence in it of phosphorus, nitrogen and so on-is being degraded. That at least can be corrected by fertilisers. But the biology of the soil is also being damaged by the loss of organic matter, which can take five to ten years to recover. Worst of all, the physical structure changes if the top soil erodes, making it harder for the land to retain water or fertiliser. Top soil can take hundreds of years to replace.

And the more land is turned over to agriculture, the greater the loss of biodiversity. Three-quarters of all the world's plant genetic material may have gone already, mostly by habitat destruction, says Pasquale Steduto of the FAO, and more is going every day. This is a worry because some of the most desirable characteristics of plants are in the wild gene pool and might be needed again one day.

According to the World Bank, "land grabs" (deals in which capital-rich food importers buy up supposedly spare land in poor countries, farm it and ship the produce back home) have had much more impact than expected. Only three years after the first deals, says the bank, they already run to 65m hectares-an eighth of the bank's own estimate of total available land (and a third of the more modest estimates). So a lot of virgin land is already coming under the plough.

On balance, concludes the FAO's Parviz Koohafkan, land is not a decisive problem for world agriculture. But nor, except in a few countries, will it allow big increases in production.

Drink sparingly

Water, on the other hand, is crucial. At the moment it is probably agriculture's critical limiting factor.

According to Nestle's Peter Brabeck, roughly 4,200 cubic kilometres of water could be used each year without depleting overall supplies. Consumption is higher, at about 4,500 cubic kilometres a year, of which agriculture takes about 70%. As a result, water tables are plummeting. The one in Punjab has fallen from a couple of metres below the surface to, in parts, hundreds of metres down. The rivers that water some of the world's breadbaskets, such as the Colorado, Murray-Darling and Indus, no longer reach the sea.



Scarce and precious

By 2030, on most estimates, farmers will need 45% more water. They won't get it. Cities are the second-largest users of water, and those in the emerging world are growing exponentially. They already account for half the world's population, a share that will rise to 70% by 2050. In any dispute between cities and farmers, governments are likely to side with cities. Agriculture's share of the world's water used to be 90%, so it has already fallen a long way. It will surely decline further.

The reason water matters so much is that irrigated farming is so productive. It occupies only one-fifth of the world's farmland but contributes two-fifths of the world's food output. Rice, the world's most important crop in terms of calories, is mostly irrigated, and is especially sensitive to shortage of water, stopping growth at the first sign of getting dry.

Water problems will worsen both because irrigated areas will suffer disproportionately from the effects of climate change and because diets are shifting towards meat, which is "thirsty". Arjen Hoekstra, of the University of Twente, says it takes 1,150-2,000 litres of water to produce 1kg of wheat, but about 16,000 litres of water for 1kg of beef. As more people eat more meat, rising demand by farmers will collide with contracting water supplies.

There are things farmers can do. Roughly a third of the water used in fields with ordinary gravity-fed irrigation is reckoned to be wasted (more accurately, it recharges the aquifers without being taken up by plants, which is not quite the same thing). Switching to drip-feed irrigation means that watering becomes more precise, cutting consumption per unit of output. Jain Irrigation, the largest drip-feed company in India, has shown the technology can work for smallholders, cutting their water usage by about 40%. Drip-feed irrigation also boosts overall yields because the plants are watered at the right time and get the right amounts.



Overall efficiency gains in the use of water could be large. Israel wastes only about a tenth of its water, and if everyone were equally efficient, the world's water problem would be much less pressing. Israel makes widespread use of low-volume irrigation such as drip-feed and micro-sprinklers, which is expensive. The FAO reckons that over the next 40

years irrigation will require cumulative investment of almost $1 trillion. That may be forthcoming eventually, but it won't be soon.

No-till agriculture, an agronomic practice in which farmers do not plough up the land but leave part of the previous year's crop on it, also preserves water. The residue acts like a blanket, lowering the soil temperature by a degree or so in the tropics (and thus helping to combat the effects of global warming). It also prevents water run-off and reduces evaporation by 30-40%, reckons Patrick Wall of CIMMYT. As a bonus, adds Shivaji Pandey of the FAO, no-till and low-till farming sequester about 200kg of carbon per hectare per year. In parts of India, the time saved by not ploughing after harvest also makes it possible to grow an extra crop.

So why hasn't this miracle cure been adopted universally? Because of weeds. They like to grow in the mat as much as crops do. It helps to have plants that are genetically engineered to resist weedkillers, but Europe has banned those. This has meant that no-till was used on only 6% of farmland in developing countries and hardly at all in Europe in 2008.

Agriculture's third basic input is nitrogen. Historically, lack of nitrogen, not lack of land or water, has been its biggest constraint. The invention of a process to synthesise nitrogen cheaply into ammonium, a fertiliser, paved the way for the huge increase in food production in the 20th century. Vaclav Smil of the University of Manitoba in Winnipeg argues that this process, rather than the transistor or computer, was the century's most important invention, and that 2.5 billion people would not be alive without it.

African farmers use an average of 10kg of fertiliser per hectare. Indians use 180kg. India is richer than Africa, but not hugely so. IFAD's Mr Nwanze thinks Africans could double yields by doubling their fertiliser use.

Don't overdose

But there are limits, as China's example shows. Since 1990 Chinese grain production has been roughly stable but the use of fertiliser-which is heavily subsidised- has risen by about 40%. China could cut fertiliser use by at least a third without ill effects. In fact, it would be a blessing. At the moment excess gunk runs off into rivers, gathers in lakes and produces toxic blooms of algae. Likewise, the "dead zone" of the northern Gulf of Mexico is caused largely by overuse of fertiliser in the American Midwest that is making its way down the Mississippi.

So increased fertiliser use would boost yields in some countries and be counterproductive in others. But globally there is little prospect of a big rise because of the expense. Fertiliser prices spiked even more dramatically than food prices in 2007-08. Phosphorus prices soared and have stayed high, reflecting fears that the stuff may be running out. Making fertiliser is energy-intensive, so unless oil prices fall, increasing food production by slathering ever more fertiliser on the land would be inefficient.

Similar considerations apply to dealing with pests and diseases. At the best of times, farmers face the curse of the Red Queen in "Alice Through the Looking-Glass"("A slow sort of country! Now, here, you see, it takes all the running you can do, to keep in the same place."). Predators wage a constant war on plants, and if farmers do nothing the output of a new seed will decline by a percentage point or so every year. This is why new seeds are needed all the time.

There are signs that the burden of disease may be increasing. Rothamsted Research, home to the Broadbalk experiment, has been tracking aphid infestations for 50 years. In 2000 no aphids had a particular resistance mechanism called mace. Now 70-80% do. The aphid that causes potato blight now appears a month earlier than it used to, so it feeds on the plant at a more vulnerable point in its life.

The greater incidence of disease may be caused by many things: more insects surviving winter; the banning of dangerous pesticides; cuts in the budgets of institutions that conducted research into diseases; even globalisation. The corn-borer moth, native to Central and North America, first appeared in Europe in 1999 in Kosovo, presumably on the boots of American peacekeepers. It has since spread in concentric circles each year and is now eating into maize crops in Germany and Italy.

These problems are onerous, but most are probably tractable. Climate change is not. Global warming upsets the world's water cycle, increases the burden of pests, desiccates soil and reduces yields. In 2010 the world got an unpleasant taste of what climate change might bring. During the summer the jet stream (air currents at 7,000-12,000m above sea level which affect the winds and weather) changed its course. That seems to have been linked to the catastrophic floods in Pakistan and huge forest fires in Russia which help explain the big food-price rises in the second half of last year.

Agriculture is itself a big contributor to climate change. According to the Intergovernmental Panel on Climate Change, farming directly accounts for 13.5% of greenhouse-gas emissions, and land-use changes (often cutting down jungle for fields) are responsible for a further 17.4%. That adds up to almost one-third.



The day of the locust

Agriculture is responsible for between half and two-thirds of emissions of two especially toxic greenhouse gases, methane and nitrous oxide. These stay in the atmosphere for years, absorb a lot of radiation and, weight for weight, have many times the impact of carbon dioxide. So even if nothing else were happening, farmers would be under pressure to cut emissions.

But a lot else is happening. An increase of 2^C in global temperatures, says Hans-Joachim Braun, the head of CIMMYT's wheat programme, could cause a 20% fall in wheat yields. This would exceed any possible gains from warming in areas currently too cold to grow crops and would also offset the benefits of rising carbon-dioxide concentrations. Plants eat CO_2, so if there is more of it in the atmosphere, photosynthesis should increase and yields rise. But no one knows by how much.

Climate change also affects the rhythm of the seasons. Winters arrive later or spring earlier. Rainy seasons become shorter, milder or more intense. All living things depend on the heartbeat of seasonal change. In spring, caterpillars time their emergence to coincide with the bud burst of trees; birds start nesting when they can feed those newly emerged caterpillars to their fledglings. Any disruption to the seasonal rhythm tugs at the web of life. For example, in parts of Mozambique where villagers cultivate maize on the flood plain of the Zambezi river, the rainy season now begins later, so the crop is sown later, shortening its growing period.

Out of synch

In 2009 Oxfam, a British charity, asked thousands of farmers in a dozen countries what worried them most about climate change. Their biggest concern was not higher temperatures but disruptions to the natural cycle. "I know I am supposed to sow by a certain time or date," said Mohammed Iliasuddin, a farmer in Bangladesh. "That is what my forefathers have been doing. But then for several years the temperature and weather just does not seem right for what we have been doing traditionally. I do not know how to cope with the problems."

When the International Food Policy Research Institute (IFPRI) tried to work out the impacts of climate change on the main cereal crops, almost all its results suggested that yields in 2050 are likely to be lower than they were in 2000, sometimes much lower. Almost half the forecasts showed yield reductions of 9-18% by 2050. One came up with a drop in rainfed-maize yields of 30%. The most vulnerable crop turned out to be wheat, with the largest losses forecast in developing countries. The Indo-Gangetic plain, home to a seventh of mankind and purveyor of a fifth of the world's wheat, is likely to be especially hard hit.

A special report on feeding the world

Waste not, want not

Feb 24th 2011 | from the print edition

Far too much food never reaches the plate

MANCUR OLSON, an American economist, talked about $100 bills lying on the sidewalk to express the idea of easy gains. The amount of food that is wasted represents a gigantic stack of $100 bills. Both in rich countries and poor, a staggering 30-50% of all food produced rots away uneaten. According to Josef Schmidhuber of the FAO, in Africa the post-harvest waste largely explains why many smallholders are net purchasers of food even though they grow enough for their families to eat.

In poor countries most food is wasted on or near the farm. Rats, mice and locusts eat the crops in the field or in storage. Milk and vegetables spoil in transit. These might be considered losses rather than waste. Kanayo Nwanze, the head of the International Fund for Agricultural Development, reckons that such losses could be reduced by half. That would be the equivalent of a rise in output of 15-25%, which would go a long way to providing the extra food needed by 2050.

Unlike in rich countries, much of the waste in poor ones is a matter of money, not behaviour. Grain is often heaped on the ground and covered with a sheet: no wonder the rats get at it. Losses could be reduced by building new silos and better roads and providing more refrigeration, but those things are expensive. The African Development Bank is financing a seven-year programme to reduce waste by 3% a year. Given the scale of the losses, says Divine Njie of the FAO, who worked on the scheme, "we were surprised at how modest the targets were." But 3% a year adds up to a 20% reduction in waste over seven years, a good start.

There is likely to be more of this sort of investment in future. To meet demand in the emerging megacities, more processed food is being sold in supermarkets and less raw food in markets. Nutritionists worry about the resulting loss of quality, but there are big gains in quantity. Food processors and retailers use modern silos, proper trucks and refrigeration-the very things the rural poor lack.

Rich pickings

Rich countries waste about the same amount of food as poor ones, up to half of what is produced, but in quite different ways. Studies in America and Britain find that a quarter of food from shops goes straight into the rubbish bin or is thrown away by shops and restaurants. Top of the list come salads, about half of which are chucked away. A third of all bread, a quarter of fruit and a fifth of vegetables-all are thrown out uneaten. In America this amounted to 43m tonnes of food in 1997; in Britain to 4m tonnes in 2006.

If all rich countries waste food at the same rate as Britain and America, very roughly 100kg per person per year, the total waste adds up to 100m tonnes of food a year, equivalent to one-third of the entire world's supply of meat-an astonishing quantity. If Western waste could be halved and the food distributed to those who need it, the problem of feeding 9 billion people would vanish.

But it can't. Western spoilage is a result of personal habit and law. Education or exhortation might make a difference, but the extent of waste is partly a reflection of prices: food is cheap enough for consumers not to worry about chucking it out, and prices seem unlikely to rise by enough to change that attitude.

A special report on feeding the world

Doing more with less

Feb 24th 2011 | from the print edition

The only reliable way to produce more food is to use better technology



Time for an efficiency drive

IT IS 7am at Kabiyet Dairies in the emerald hills of western Kenya. The dairy is five miles down an almost impassable track, and you would think milk would turn to butter long before it arrives. Yet the place is heaving with farmers waiting for their produce to be tested, carrying it in pails on trucks, on the backs of motorbikes or on their heads. The dairy opened only 18 months ago and may seem basic, yet it has just struck a deal to sell milk to an international processing plant in Nairobi. Farmers get 26 shillings a litre, more than twice what they were paid before the dairy opened its doors.

Laban Talam, a 30-year-old villager, has a smile on his face. He farms just under a hectare on a hillside overlooking the dairy. Two years ago he was scratching a living, supplementing his earnings from one cow, a native longhorn, with odd jobs outside farming. Now he has five cows, three of them Holsteins who give twice as much milk as the native breed. He rents extra land from his neighbour, has rebuilt his house, grows pineapples for export and has installed a biomass pump. His children go to a private school.

Kabiyet Dairies is only one agricultural success story among many. Brazil, by investing heavily in research, has turned itself into the first tropical farm giant, joining the ranks of the temperate-food superpowers such as America, Europe and Canada. It did so in a single generation, thanks mainly to big commercial farms. Vietnam, through policy changes (especially freeing up small-scale private agriculture), turned itself from one of the world's largest importers of rice into the world's second-largest exporter.

So it is possible to grow more food, more efficiently, on both a regional and a national scale. But can it be done on a global scale, which is what is needed to feed 9 billion people? If so, how?

Because of the constraints described in the previous section, there will not be big gains in food production from taking in new land, using more irrigation or putting more fertiliser on existing fields. Cutting waste could make a difference (see article), but there are limits. The main gains will have to come in three ways: from narrowing the gap between the worst and best producers; from spreading the so-called "livestock revolution"; and-above all-from taking advantage of new plant technologies.

The huge gap between the best and worst producers in roughly comparable farming areas shows the scope for improvements. Both eastern and western Europe are good for growing wheat. Yet west European farmers achieve yields of up to 9 tonnes per hectare, whereas east European ones get just 2-4 tonnes. The discrepancy is much wider than differences in incomes or soil quality might suggest.

Or take the example of maize seed. According to Pioneer, a big seed company, central Ghana has some of the best maize land in the world, yet only 3% of the country's seed is the hybrid kind that can take full advantage of it. In contrast, Brazilian land is less good, but 90% of its seeds are hybrid ones. The country is now the world's third-largest exporter. If Ghana bought more hybrid seeds, it could presumably achieve something closer to Brazilian yields.

Why don't the laggards catch up? A good place to look for an answer is Africa, the part of the world that has most conspicuously failed to feed itself over the past 50 years. Five years ago, says Joe deVries, head of crop research at the Alliance for a Green Revolution in Africa (AGRA), the big problems in Africa were prices and investment. Farmers were getting too little for their produce and no one was doing any research into "African crops" such as sorghum and cassava. Now prices are higher-a benefit to producers, at least-and the "African crop" problem is being solved. New semi-dwarf sorghum has three times the previous yield, and genetic research has shown how to control cassava's great scourge, viral disease.

The problem now is to get those improved seeds to the farmers. Around Kabiyet, Western Seed Company, a small outfit that develops its own varieties of maize for smallholders, doubled production in 2010 and still sold out two months early. It is one of 45 seed companies set up with AGRA's backing, and Mr deVries reckons they will need 100 to meet prospective demand. At present only 10% of Kenya's farmers are using new seeds, but Mr deVries hopes that by 2015 the figure will have risen to half.

When India began its Green Revolution in the 1960s, it had 388km of paved roads per 1,000 sq km of land, and only about a quarter of its farmland was irrigated. Ethiopia now has just 39km of roads per 1,000 sq km, and less than 4% of its land is irrigated. So the remaining problems in Africa are vast. Moreover, says Don Larson of the World Bank, farming in that continent is intrinsically harder to change than in east Asia because it is more varied. In east Asia, if you invent an improved rice variety, every farmer for hundreds of miles around can use it because the land and climate are much the same. In Africa, soil and climatic conditions are much more diverse and farmers a few hundred yards apart may need different seeds.

But better technology is removing some of the barriers. Since 2008 African food production per person has been rising for the first time in decades. Rwanda and Malawi have begun to export food (admittedly in Malawi's case thanks to massive and unaffordable fertiliser subsidies). For now Africa is still a net food importer, but a recent Harvard study for the presidents of East African countries argued that it could feed itself in a generation. Even if that proves optimistic, Africa could surely increase food production by more than 1.5% a year. "We didn't know how the Green Revolution would come to Africa," says Mr deVries. "Now we do."

The second main source of growth will consist of spreading a tried and tested success: the "livestock revolution". This consists of switching from traditional, open-air methods of animal husbandry, in which chickens and pigs scratch and root around the farm, eating insects, scraps and all sorts of organic waste, to closed "battery" systems, in which animals are confined to cages and have their diet, health and movement rigorously controlled. This entails huge losses in animal welfare, and European consumers are reacting against the system. But there are also gains in productivity and sometimes even in welfare, by reducing losses from diseases and predators that in traditional systems can be distressingly high.

Animal spirits

Improving livestock farming is important because of meat's growing share in the world's diet. Meat consumption in China more than doubled in 1980-2005, to 50kg a year per person. Between now and 2050, meat's share of calories will rise from 7% to 9%, says the FAO; the share of dairy produce and eggs will rise more.

Livestock matters for many reasons. It provides financial security in poor countries, where herds are often a family's savings. It can affect people's health: new infectious diseases are appearing at the rate of three or four a year, and three-quarters of them can be traced to animals, domestic and wild. Avian flu is just one example. Livestock also plays a part in global warming. Much of the methane in the atmosphere-one of the worst greenhouse gases-comes from cattle belching.

Since the 1980s livestock production has far outstripped that of cereals. World meat output more than doubled between 1980 and 2007. Production of eggs rose from 27m tonnes to 68m over the same period. Some countries have done better still. India has the world's largest dairy herd. Its milk production trebled, to 103m tonnes, over a period when global milk output increased by half. Brazil increased its production of chickens fivefold in 1987-2007 to become the world's largest exporter. Most spectacularly, China raised it output of both eggs and milk tenfold.

For sheer efficiency, there is little question that battery systems do a better job than traditional methods. A free-range hen scratching around might lay one or two eggs a week. Feeding her costs nothing, giving a net gain of 50-100 eggs a year. A

battery chicken will lay six eggs a week. She might cost the equivalent of 150 eggs to feed, producing an annual net gain of 150 eggs. And selective breeding has made her more economic to keep. Battery chickens used to need 4kg of feed for 1kg of eggs; now they need only 2kg.

Moreover, it is almost impossible to scale up a farmyard operation: there are only so many insects to eat, and so many hens one family can look after. And to breed the most productive hens which convert their feed most efficiently into eggs and are most resistant to disease, you need large flocks.

So there are two reasons for thinking that the livestock revolution will continue. One is that some countries still lag behind. An example, surprisingly, is Brazil, which has just one head of cattle per hectare-an unusually low number even for a country with so much land. Roberto Giannetti da Fonseca, of the Sao Paulo industry federation, says Brazil should be able at least to double that number-which could mean either doubling beef production or using half the area to produce the same amount.

Carlos Sere of the International Livestock Research Institute thinks traditional systems could borrow some of the methods of closed battery-farm systems-notably better feeding (giving a small amount of animal feed makes a big difference to the weight of range-land cattle) and the introduction of new breeds for better yields (as Kabiyet did by switching from longhorn to Holstein cattle).

The second reason for expecting further gains is that recent genetic analysis could improve breeding dramatically. About a third of the livestock revolution has come about through selecting and breeding the best animals. Another third comes from improved feeding and the remainder from better disease control. In the 1940s and 1950s breeding relied on the careful recording of every animal in the herd or flock; in the 1970s on artificial insemination by the best sires; and in the 1980s on embryo transfers from the best females into ordinary breeding animals.

New genetic analysis now promises to bring in another stage, says the FAO's Henning Steinfeld. It allows breeders to select traits more precisely and thus speeds up breeding by reducing generational intervals: if you know which genetic traits an animal has, there is no need to wait several generations to see how things turn out.

This will not happen everywhere. Europeans and-to some extent-Americans are increasingly influenced by welfare concerns. They jib at confining animals. The European Union has banned certain kinds of cages, and California is following suit. But, so far, people in emerging markets, where demand for meat and animal products is growing fast, are less concerned about such things, so the next stage of the livestock revolution will mainly be concentrated there.

GM and after

This will make some difference but the change likely to generate the biggest yield gains in the food business-perhaps 1.5-2% a year-is the development of "marker-assisted breeding"-in other words, genetic marking and selection in plants, which includes genetically modifying them but also involves a range of other techniques. This is the third and most important source of growth.

"Until recently we knew little about how plants function, how they perceive heat and cold, how they flower, and so on," says Caroline Dean of Britain's John Innes Centre. That is changing, thanks to greater understanding of plant genetics as well as to a dramatic fall in the costs of gathering genetic information.



Cheap, cheap

Ms Dean has worked out, for example, how plants "remember" the length of time winter has been going on and do not therefore mistake a mild spell in January for spring. The answer, it seems, is by turning off a gene after a certain period of cold weather. This process is finely adjusted, so in Sweden the plant switches off the gene later than one of the same species in southern England.

At the same time the price tag on gathering genetic data is now much lower than it used to be. Gary Atlin, a maize breeder at CIMMYT, reckons that whereas a couple of years ago the cost of identifying a single gene in a single plant was $2, now it is about 15 cents. That is still too high for many breeding operations, but work now being done jointly by CIMMYT and Cornell University should cut this to $30 per million genes. "This is Moore's law for plants," says Mr Atlin, referring to the rough rule that computing power doubles every two years for the same price. The cost of genetic identification will soon stop being a serious constraint.

The public debate on plant genetics focuses almost entirely on the pros and cons (mostly cons) of genetic modification-putting a gene from one species into another. A gene from a soil bacterium, *Bacillus thuringiensis*, for example, when spliced into maize, makes the plant resistant to herbicides; this enables farmers to plant maize, spray the crop with a weedkiller and end up with a field of nothing but maize. In Europe it is illegal to plant such maize. The biggest advantage of genetic selection, however, is probably not that it makes it possible to grow transgenic crops ("Frankenfoods"), but that it allows faster and more precise breeding.

Imagine the genetic material of plants as a vast library, with billions of books. This library has no catalogue, and none of the books has an index or table of contents. It is still possible to discover what is in the library by reading every volume. That is roughly what plant breeders have done in the past, painstakingly planting hundreds of varieties of a single species and discovering traits by breeding numerous generations from them.

Genetic marking is the equivalent of giving every book a title, table of contents and index-and with much greater speed and accuracy than any librarian could manage. Monsanto has a "corn chipper" which takes a small amount of genetic material and generates a DNA profile of hundreds of maize seeds simultaneously in seconds. It leaves the seed alive, so breeders, having mined the computer data from this and every other seed in Monsanto's vast library, can go back to a seed they like and breed from it. It is possible literally to find one plant in a billion.

Such gains are likely to snowball. In 1997 Monsanto introduced a variety of corn resistant to various pests. It fully controlled four of 15 common "above-ground" corn pests like corn borers, cutworms and stinkbugs, and partially suppressed three more. In 2004 the company introduced a successor that controlled nine of the 15 above-ground pests and seven of the eight that lived in the soil. The 2010 version controlled nine above-ground pests and seven in the soil, and suppressed three more.

At the moment the genetic evolution is just beginning. The genomes of most important crops have been sequenced only fairly recently, and that of wheat is only partly done. There are only a handful of genetically modified crops. Commercial firms have concentrated most of their efforts on only one or two traits controlled by individual genes, such as disease resistance. But the future, argues Giles Oldroyd of the John Innes Centre, lies in traits controlled by multiple genes and genetic "pathways", that is, interactions between groups of genes.

The most important of these is yield. Over the next 40 years yields need to rise by around 1.5% a year to feed mankind adequately. Maize, which has had by far the most genetic research, is the only crop whose yield is growing by more than that. If genetic selection can be extended to wheat, rice and soyabeans, that should go a long way to feeding the world by 2050.

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Our daily bread

Feb 24th 2011 | from the print edition

Bringing wheat up to scratch

FOR the past decade maize has been the seed companies' favoured crop. Research spending on it runs at $1.5 billion a year, four times that for wheat. And it shows. Maize yields in 1990-2008 rose by 1.8% a year, close to their long-term average; wheat yields increased by less than half that, half their historic average.

Wheat needs more research. It is the most nutrient-rich of the world's cereals and the most widely planted crop. It is also the staple most vulnerable to climate change. A few thousand commercial species are carefully grown and preserved. But hundreds of thousands of older varieties and wild relatives are left to the vagaries of land-use change, global warming and chance. This is a worry because some of the most desirable characteristics of plants-taste, drought- and pest-resistance-originally came from the wild gene pool, which will be needed again one day.

Wheat is physiologically different from maize in two main ways, making big genetic improvements harder to achieve. First, its genes are arranged in pairs of three, not single pairs, as with humans. That makes the wheat genome enormous, far larger than that for maize (or people). Second, the reproductive parts of the wheat plant are close together, so wheat tends to self-pollinate. In contrast, the male tassels of maize are a foot or more away from the female cob and are easily blown by the wind to other plants. So maize readily produces hybrids, which tend to be more vigorous. It is possible to produce wheat hybrids, but it takes more trouble and expense.

However, wheat is now the new frontier of plant technology. Graham Moore of the John Innes Centre in Norwich is targeting part of a chromosome called Ph1 which ensures wheat genes pair up correctly. Ph1 gives wheat's genome its stability but has to be switched off to make it easier to slot in new genes. It then has to be switched back on again, otherwise the plant will mutate unpredictably. Mr Moore has found that bathing the genetic material with a substance called okadaic acid (a toxin that occurs in mussels) enables Ph1 to be switched on and off.

Built-in Growmore

At the same time Mr Moore's colleague, Giles Oldroyd, is investigating how some plants, such as legumes (peas and beans), make their own fertiliser, in the hope of transferring this trait to cereals. Bacteria in the nodules of leguminous plants' roots convert soil nitrogen into ammonia, the feedstock of nitrogen fertiliser. The plants shelter the bacteria and use

the ammonia they make in ways that are encoded in their genes, so in principle the genes could be transferred to other plants. Since fertilisers represent a third of the input costs of wheat, enabling it to make its own nitrogen would offer dramatic savings, though Mr Oldroyd concedes that this may be a 30- or 40-year project.

Meanwhile, scientists at the Wheat Yield Consortium are trying to produce bigger wheat plants by speeding up the rate of photosynthesis. This is the process plants use to convert carbon dioxide into organic materials, using a catalyst called rubisco. Rubisco is unusual. Its catalytic rate is exceptionally slow and it is not good at distinguishing between CO_2 and oxygen. So instead of using CO_2 to build sugars and getting rid of oxygen, which is what happens in photosynthesis, it sometimes uses oxygen, does not build up the sugars and gets rid of CO_2 (a process called photorespiration). If rubisco could be persuaded not to catalyse photorespiration, plants would grow more vigorously.

There are three ways to do that. One is to use more and better rubisco. A second way is to tinker with the proteins that influence rubisco, such as rubisco activase, which has produced promising results in tobacco plants. Third, it might be possible to manipulate the environment inside the leaves of the plant so rubisco catalyses photosynthesis more reliably. Some plants, such as maize and sugar cane, have special cells in which to capture CO_2. The Gates Foundation is financing research to try to breed those characteristics into rice which, like wheat, lacks this extra cell.

It is a long shot, but by 2050 wheat plants could be making their own fertiliser, as well as having acquired desirable genetic characteristics from other plants and being larger and more productive. Whether that is enough to overcome many people's horror of genetic engineering remains to be seen.

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A special report on feeding the world

Not just calories

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People also need the right nutrients



The fat of the land

"PROVIDING the quantity of calories is manageable," says Joachim von Braun of the University of Bonn. "The big issue is nutrition." In the past 30 or 40 years diets have improved. There are now proportionately fewer malnourished people in the world than there used to be (though the absolute number is high and rising). Fewer people fail to grow to their proper height and weight because of poor childhood diets. India is a peculiar exception to this rule: for reasons no one understands, Indians of all income levels now eat less food, and of a lower quality, than they used to, and than you would expect.

But although most people get enough calories, they still suffer huge deficiencies, especially in four nutrients: iron, zinc, iodine and vitamin A. Iron deficiency makes over 1.5 billion people anaemic, including half of all women of child-bearing age in poor countries. Lack of vitamin A causes up to half a million children to go blind each year, of whom half die within a year. Zinc deficiency is thought to be responsible for about 400,000 deaths a year.

Such deficiencies have long-term consequences for the whole society. In Tanzania, children whose mothers were given iodine capsules when pregnant stayed at school for four months longer than their siblings born when the mother did not get those capsules. Children suffering from nutrient deficiencies cannot concentrate and have lower scores in tests for cognitive ability. And there seems to be a link between nutrition in childhood and earnings in later life. In Kenya children who were given nutrition-improving deworming pills for two years earned about $3,000 more over their lifetime than those who got them for only one year. Malnourished boys also do worse in the marriage market.

Drowning in a sea of food

On the face of it, the obesity epidemic in rich countries presents exactly the opposite problem. For the first time in history, more calories do not mean better health. The epidemic is spreading to less well-off places: Mexico has the second-largest share of obese people after America; Guatemala's obesity rate has quadrupled in 30 years. The overweight are obviously not troubled by a shortage of food. But a large group of people in rich countries does suffer from nutritional deficiencies: the elderly. They need more calcium and vitamins with advancing age, and many do not get them. Half of those over 75 in hospital are reckoned to be nutrient-deficient, as are many obese people.

Nutrient deficiency is not easy to cure. In poor countries, vitamin supplements -a common expedient-reach less than half of those who most need them, the rural poor. And programmes to hand out vitamin A supplements in massive doses to reduce child mortality have brought little discernible improvement. Michael Latham of Cornell University, reviewing the history of such handouts, speaks of "the great vitamin-A fiasco".

Cultural norms are a constant obstacle. Abhijit Banerjee of the Massachusetts Institute of Technology quotes George Orwell's "Road to Wigan Pier" on the British working class:

> The basis of their diet is white bread and margarine, corned beef, sugared tea, and potatoes-an appalling diet. Would it not be better if they spent more money on wholesome things like oranges and wholemeal bread, or if they ... ate their carrots raw? Yes it would, but the point is, no ordinary human being is ever going to do such a thing. The ordinary human being would sooner starve than live on brown bread and raw carrots. And the peculiar evil is this, that the less money you have, the less inclined you feel to spend it on wholesome food. A millionaire may enjoy breakfasting off orange juice and Ryvita biscuits; an unemployed man doesn't.

Better nutrition, in short, is not a matter of handing out diet sheets and expecting everyone to eat happily ever after. Rather, you have to try a range of things: education; supplements; fortifying processed foods with extra vitamins; breeding crops with extra nutrients in them. But the nutrients have to be in things people want to eat. Kraft, an American food manufacturer, made Biskuat, an "energy biscuit" with lots of extra vitamins and minerals, into a bestseller in Indonesia by charging the equivalent of just 5 cents a packet. It also did well in Latin America with Tang, a sweet powdered drink with added nutrients, marketing it to children for the taste and mothers for its nutritional value.

It is also possible to breed plants that contain more nutrients. An organisation called HarvestPlus recently introduced an orange sweet potato, containing more vitamin A than the native sort, in Uganda and Mozambique. It caught on and now commands a 10% price premium over the ordinary white variety. The local population's vitamin intake has soared.

HarvestPlus has a pipeline of "biofortified" crops: cassava with vitamin A due to be released in Nigeria this year; pearl millet with extra iron and zinc, to be launched in India in 2012; beans with extra iron, also in 2012; rice with zinc, due for release in 2013. But again there are limits: it is hard to breed the full recommended daily dose of nutrients into plants this way.

John Hoddinott of IFPRI says the lesson of previous failures is that you have to select your targets: focus on the main deficiencies and on those for whom you can do most good, especially infants. Feeding the world is not just about calories but nutrients, too; and it is not about scattering them far and wide but pinpointing the groups who can and will eat them.

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A prospect of plenty

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For the first time in history, the whole of mankind may get enough to eat

FOR 10,000 years farmers have produced food for mankind. That has been the basis of life. "When tillage begins," wrote Daniel Webster, "other arts follow. The farmers, therefore, are the founders of human civilisation."

This special report has argued that over the next 40 years farmers will find it harder to produce enough for everyone because of constraints on land, water and fertilisers. There is some room for expansion onto virgin land, but not much. There is less water because of competition from fast-growing cities. Returns on fertiliser use are diminishing. And government policies that boost biofuels and restrict trade will get in the way.

But though not easy, it should be perfectly possible to feed 9 billion people by 2050. A start has been made to boosting yields and reducing harvest losses in countries that lag behind, notably in Africa. The "livestock revolution" can be furthered by genetic improvements. Above all, advances in plant genetics should enable breeders to push up the annual growth in yields of staple crops from 0.5-1.0% to 1.5%-which would produce enough for everyone. By 2050 the growth in the world's population will have slowed almost to zero, changes in food demand will come mainly from changing diets and the biggest food-supply problem will be dealing with the effects of climate change.

It would be a huge relief if those 9 billion could be fed without large disruptions of supplies or price spikes. Food is the world's secret stabiliser-or destabiliser. As George Marshall said in 1947, it "is the very basis of all reconstruction; hunger and insecurity are the worst enemies of peace." But there will be winners and losers. And the strain is likely to set off conflicts along the way: over water and land; over policies; between farmers who want higher prices and consumers who don't; and between countries or groups of countries.

In 2007-08 and again in 2010-11, relatively small changes in food markets triggered sharp rises in prices. That might have been understandable as a response to, say, a surge in demand from China and India. But, as Shenggen Fan of IFPRI points out, these giants do not import much food. Instead, prices spiked in reponse to temporary factors, such as the fall in the dollar, export bans and panic buying.

Higher prices provide farmers with incentives to produce more, making it easier to feed the world. But they also impose costs on consumers, increasing poverty and discontent. If passing fancies like trade bans can almost double world food prices twice in four years, imagine what a stumble in efforts to boost yields might do.

Climate change will add to the strains, and not only by disrupting the weather. If there were a real carbon price, farmers would think of their fields in terms of the carbon embodied in crops and soil. That in turn would influence what they grow (elephant grass, perhaps, rather than wheat). And they would have to decide not just which crops to plant but whether to use them for food, carbon capture or things like bio-industrial raw materials. Competition for crops is already a problem, and likely to get worse.

Given these strains, and the political ramifications of food, efforts to feed the 9 billion will sharpen geopolitical conflicts and speed up shifts that are happening anyway. Some of the most successful food producers over the past 20 years have been the BRIC countries (Brazil, Russia, India and China). Catherine Bertini, of the Chicago Council on Global Affairs, a think-tank, points out that in the last several years, BRIC countries joined the list of the top 40 largest contributors to the

World Food Programme, which plays an important part in humanitarian crises; and that when North Korea began to establish new diplomatic relationships in the last decade, there was a priority on reaching out to grain exporters.*

The BRICs' influence on food markets will rise as Europe's declines. The old continent's decision to turn its back on genetic modification and the livestock revolution may be understandable-but given the need for higher yields, Europe is in danger of marginalising itself. America is likely to retain its place as the world's largest food exporter, but its position is no longer unchallenged.

Worth a detour

There are plenty of reasons to worry about food: uncertain politics, volatile prices, hunger amid plenty. Yet when all is said and done, the world is at the start of a new agricultural revolution that could, for the first time ever, feed all mankind adequately. The genomes of most major crops have been sequenced and the benefits of that are starting to appear. Countries from Brazil to Vietnam have shown that, given the right technology, sensible policies and a bit of luck, they can transform themselves from basket cases to bread baskets. That, surely, is cause for optimism.

Update, February 25th 2011: This sentence has been altered from the version found in the print edition.

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Furniture shops

The secret of IKEA's success

Feb 24th 2011 | *MALMO* | from the print edition

Lean operations, shrewd tax planning and tight control



THE paragraphs below are arranged randomly; you will have to assemble the finished article yourself.

Just kidding. But if you shop at IKEA, you are no doubt familiar with the hassle and frustration of assembling its flat-pack furniture at home. Millions of customers endure it, for two reasons: IKEA's products are stylish and they are very, very cheap.

"We hate waste," says Mikael Ohlsson, who took over as chief executive of IKEA Group in September 2009. He points proudly at a bright-red "Ektorp" sofa. Last year his designers found a way to pack the popular three-seater more compactly, doubling the amount of sofa they could cram into a given space. That shaved euro100 ($135) from the price tag-and significantly reduced the carbon-dioxide emissions from transporting it.

Thrift is the core of IKEA's corporate culture. Mr Ohlsson traces it back to the company's origins in Smaland, a poor region in southern Sweden whose inhabitants, he says, are "stubborn, cost-conscious and ingenious at making a living with very little". Ever since Ingvar Kamprad founded IKEA in 1943, the company has tried to allow "people with limited means to furnish their houses like rich people".

IKEA presents itself as a green company with a social mission. Mr Ohlsson boasts of its charitable work and its aim to use only renewable energy. He says he wants his "co-workers" to be happy, honest and inclined to think for themselves. He is proud that 40% of the company's 200 top managers are women.



Business is good (see chart). In the fiscal year 2010, IKEA's sales grew by 7.7% to euro23.1 billion and net profit increased by 6.1% to euro2.7 billion. Conforama, Habitat and other rivals do not come close. IKEA's strong brand and low prices helped it to weather the downturn, even though 80% of its sales are in crisis-hit Europe. In 2010 its sales rose by 8.2% in Spain and 11.3% in Italy. The firm is doing well in Bulgaria and Romania and planning to expand further in central and eastern Europe.

Thrifty Germans are IKEA's best customers, accounting for 15% of sales. It has become part of German culture: in 2009 a Hamburg theatre staged an opera about it, "Wunder von Schweden" ("Miracle from Sweden"), a biography of the "furniture messiah" set to Swedish folk tunes.

Yet behind IKEA's clean image is a firm that is very Swedish, secretive by instinct and, some say, rigidly hierarchical. All six members of the supervisory board are Swedish. (Mr Kamprad, at 84, is a senior adviser.) Over the years the company has been accused of using child labour in Asia and of buying feathers plucked from live geese. Journalists revealed that Mr Kamprad had backed a Swedish fascist group in his youth; he apologised in an open letter.

More recently, IKEA has had problems in Russia, where it has 12 stores. Having campaigned against corruption and even frozen its investments there for a while to protest against poor governance, last year IKEA was itself involved in a scandal. It had to sack two senior executives in Russia for allegedly turning a blind eye to bribes paid by a subcontractor to secure electricity supplies for its St Petersburg outlets.

When damaging news breaks, IKEA has an admirable habit of coming clean. But the firm's ownership structure is opaque. Critics grumble that its set-up minimises tax and disclosure, handsomely rewards the Kamprad family and makes IKEA immune to a takeover. The parent for IKEA Group, which controls 284 stores in 26 countries, is Ingka Holding, a private Dutch-registered company. Ingka Holding, in turn, belongs entirely to Stichting Ingka Foundation, a Dutch-registered,

tax-exempt, non-profit-making entity, which was given Mr Kamprad's IKEA shares in 1982. A five-person executive committee, chaired by Mr Kamprad, runs the foundation.

The IKEA trademark and concept is owned by Inter IKEA Systems, another private Dutch company. Its parent company is Inter IKEA Holding, registered in Luxembourg. For years the owners of Inter IKEA Holding remained hidden from view and IKEA refused to identify them.

In January a Swedish documentary revealed that Interogo, a Liechtenstein foundation controlled by the Kamprad family, owns Inter IKEA Holding, which earns its money from the franchise agreements Inter IKEA Systems has with each IKEA store. These are lucrative: IKEA says that all franchisees pay 3% of sales as a royalty. The IKEA Group is the biggest franchisee; other franchisees run the remaining 35 stores, mainly in the Middle East and Asia. One store in the Netherlands is run directly by Inter IKEA Systems.

After the airing of the polemical documentary on Swedish TV, Mr Kamprad retorted that "tax efficiency" was a natural part of the company's low-cost culture. Yet such diligent efforts to reduce the firm's tax burden sit uncomfortably with IKEA's socially conscious image. Mr Ohlsson is trying to defuse criticism of IKEA's opacity by providing more information on its finances. Last year the firm published detailed figures on sales, profits, assets and liabilities for the first time ever.

Mr Ohlsson argues that IKEA is more competitive as a privately owned company. Instead of sweating to meet the quarterly targets the stockmarket demands, it can concentrate on long-term growth. Mr Ohlsson plans to double the pace of store openings in China, where IKEA already has 11 outlets. Undeterred by the firm's headaches in Russia, he plans to open perhaps three more stores in the Moscow area in the next few years. Mr Ohlsson hopes to move into India when the retail market opens up there. He even sees room for expansion in Britain. An Englishman's home is his castle, and castles need furniture.

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Business and commodity prices

Everyday higher prices

Feb 24th 2011 | *NEW YORK* | from the print edition

Manufacturers and retailers are desperate to pass on higher commodity prices to their customers



NO ONE will be laughing on April 1st when Whirlpool and Electrolux raise the prices of their washing machines by a whopping 8-10%. The firms want to pass on the higher cost of inputs such as steel, which has risen by 20% in the past year. So far, American manufacturers have had to suck up most of the increase in the prices of their raw materials, with predictable consequences. Whirlpool's profits have disappointed, and its share price has tumbled by nearly a third since April.

So its promised price rise will be watched closely by retailers and manufacturers everywhere. Can consumers be made to pay more? Perhaps not yet: the downturn has made frugality fashionable. Even the well-off can be seen mingling with the masses in Walmart or Tesco.



Well before the recession, retailers and manufacturers already fretted that they were losing their "pricing power". That did not matter much in good times, when margins rose even when prices fell, thanks to the rapid increase of manufacturing in low-cost countries such as China. But now the surge in commodity prices-*The Economist*'s commodity-price index has risen by 49% in the past year-is forcing desperate manufacturers to find out whether they have any pricing power left.

Passing on higher commodity costs used to be relatively uncontroversial. Higher input costs hit all manufacturers alike, so they all wanted higher prices. And it was easy to explain to consumers why prices had to go up. The norm was that prices of goods on the shelves lagged commodity prices by around six months.

Yet many doubt that Whirlpool and Electrolux will be able to persuade customers to pay their higher prices. If so, the price rises will swiftly be reversed and the bosses responsible, such as Jeff Fettig, Whirlpool's chief executive, could find themselves hung out to dry. A particular worry for him is that two South Korean rivals, Samsung and LG, are said to be keen to use their rivals' price increases as a chance to steal market share.

Retailers once simply accepted it when a manufacturer said it would raise prices because of higher input costs, says Sandeep Chugani of BCG, a consultancy. Now they want to know the exact formula for how much a particular commodity affects the price of a good. This makes for tough negotiations. Big retailers, with their greater muscle, may gain an edge at the expense of manufacturers' margins.

When retailers decide to pass on higher costs to consumers, they are increasingly trying to do so in ways that hint that they still offer value for money. One ruse is to offer a wider range of products in a particular category, including a no-frills version that will remain cheap and higher-quality ones that grow more costly. Another is to raise prices discreetly by offering smaller products. But this can backfire: customers noticed when Kimberly-Clark sold them smaller sheets of toilet paper.

Retailers are starting to reverse the trend towards handing over control of parts of their stores to manufacturers: eg, by letting PepsiCo run the soft-drinks shelves and Procter & Gamble rule the nappies. Now, retailers don't want anyone to get between them and their customers.

This new attitude will hurt manufacturers' margins. So will the growing investment in private-label goods, especially in America, where they have been rarer than in Europe. Sears, for example, could squeeze its branded suppliers by marketing its own Kenmore brand properly, says Mr Chugani.

Some retailers are looking for opportunities to reintegrate their supply chains, which had been increasingly outsourced in recent years. A senior retail executive says that in negotiations with suppliers he is now ready to offer to buy their shares. The coming year will tell retailers and manufacturers a lot about whether the price elasticities of goods sold in shops have really changed. Analysts predict that this will vary widely, depending among other things on how rich the shoppers are and what they are buying.

It will be easier to pass on higher costs to the wealthy. Soaring cotton prices will probably push up clothes prices sharply. Ralph Lauren's customers will probably pay more for their threads without much grumbling, but Walmart's may not. Food companies are in a stronger position than clothes makers. Clothes can be mended or reused; baked beans can't.

Some firms boast that they will absorb all the pain themselves. Wegmans, a regional American supermarket chain, pledged this week not to raise prices this year on 40 staples, from fruit to coffee. It says this will cost it at least $10m. In contrast, Hanes, a mass-market clothes maker, is talking of raising prices by up to 30%. It will surely lose market share.

Historically, the margins of retailers and manufacturers have been remarkably stable, says Carsten Stendevad of Citigroup's corporate-advisory arm. If commodity prices continue to rise, they will eventually be passed on to consumers one way or another. After years of goods getting cheaper, consumers may have to start getting used to everyday higher prices.

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Bad publicity

Better to be reviled than ignored

Feb 24th 2011 | from the print edition

Negative publicity is good for unknown firms, bad for established ones



THERE is no such thing as bad publicity, goes the adage. This is bunk. Just ask Toyota, a firm that once had a peerless reputation for reliability but spent much of last year battling allegations that its cars had defective accelerators. Or Sanlu, a Chinese company that was revealed to be peddling poisonous milk. It is now bankrupt and its top executives are in jail.

Yet if your starting point is obscurity, even bad publicity may be helpful, argues Alan Sorensen, an economics professor at Stanford University's Graduate School of Business. He looked at the effect of book reviews in the *New York Times*. In a study published in *Marketing Science*, he found that well-known authors who earned glowing reviews for a new book

could expect to sell 42% more copies, whereas a negative review caused sales to drop by 15%. For unknown authors, however, it did not matter whether a book was panned or lauded. Simply being reviewed in the *Times* bumped up sales by a third.

Mr Sorensen extrapolated his findings to other businesses. For small brands fighting for recognition in crowded markets, almost any publicity is beneficial, he reckons. One reason is that, for lesser-known brands, negative perceptions fade more quickly in consumers' minds than their general awareness of the product. When coming across a brand whose boss is, say, a philanderer, they recognise it but don't remember why. With established brands, on the other hand, the whiff of bad publicity lingers longer.

Mr Sorenson suspects that some consumers take pleasure in exploring the ridiculed. "Borat" (pictured above) made Kazakhstan sound awful, claiming among other things that its national anthem included the couplet "Kazakhstan's prostitutes cleanest in the region/ Except of course for Turkmenistan's." Yet the country received a fourfold increase in tourist inquiries after the film was released, observes Mr Sorenson.

There are some limits to the theory. Vitaly Borker, the founder of DecorMyEyes, an online optician, tried to generate publicity by replying abusively to dissatisfied customers, and even allegedly threatening some of them with violence. Mr Borker boasted to the *New York Times* that provoking masses of complaints bumped him to the top of Google searches for eyewear. His brilliant plan backfired, however: Mr Borker was arrested in December.

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Handheld digital games

Hand to hand combat

Feb 24th 2011 | *TOKYO* | from the print edition

A new threat to Sony and Nintendo

ALIEN intruders are attacking. Can Sony and Nintendo survive? Since Apple's iPhone and iPad were introduced, smartphones and tablets have begun to undermine the cosy duopoly that dominates handheld digital games.

The gaming industry is undergoing three shifts. First, the new devices are good enough for sophisticated games, so they have caught the attention even of hardcore gamers. Second, online app stores have created a new sales channel, opening the market to new game developers. Third, because Android (Google's mobile operating system) can run on devices from different manufacturers, it has emerged as an alternative platform. This unbundles games from the dedicated hardware they run on.



The portable gaming industry is worth perhaps $25 billion a year, split roughly equally between sales of consoles and games (from which device makers or operating-system developers earn royalties). Device makers previously sniffed at the notion that smartphones or tablets posed a threat. Now they feel like a character who didn't spot the zombies creeping up behind him (see chart).

Since 2004 when the Nintendo DS (for "dual screen") and Sony PSP (for "PlayStation Portable") were introduced, both firms have regularly upgraded the devices with faster processors or wireless connectivity. Now they are launching a new generation of hardware, with different features and different business strategies.

Nintendo is releasing its 3DS on February 26th in Japan and in March in America and Europe. It provides three-dimensional images without the need to wear special glasses, as required with 3D television and films. The 3DS can also take 3D photos. The firm expects to sell 4m in the first month, at around $250 each. The system is closed: Nintendo's games work solely on Nintendo devices. The selling point is that the device is super-cool. "We try to create experiences that are only possible on our platform," says one executive.

Sony prefers to hedge its bets. Its latest device, the NGP (Next Generation Portable), is also packed with new technology, such as a touch screen and touch-sensitive back casing. And as with its rival, NGP games work only on NGPs.

Yet Sony has also opened its platform slightly. It has made older PlayStation games available on Android devices, since today's gadgets are as powerful as the home consoles of yore. Sony collects royalties from sales, allowing it to squeeze more cash out of old assets. And it has begun a programme to let developers write new games for PlayStation-compliant devices running the Android operating system. Not only does Sony again take a cut of the action, but the games also work on the NGP (albeit without tapping its advanced features). The first handset-maker to release a compliant device is Sony Ericsson, whose smartphone has a retractable PSP button-pad.

Apple, which has sold an impressive 160m iPads, iPhones and iPod touches, has a famously closed approach. It vets every app, and its apps work only on its hardware. Google's Android operating system, by contrast, is device-agnostic. It claims around 25% of the smartphone market and is popular on tablets. Already, more Android devices ship than Apple ones.

This year will see a gory battle between open and closed platforms, and between multi-purpose devices and specialised gaming gadgets. Nintendo and Sony need more blockbuster games. Smartphone- and tablet-makers are under less pressure, since their gadgets have non-frivolous uses. But if Nintendo's 3D screens are a hit, there will be a stampede to copy them.

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Gambling in Singapore

Sin galore

Feb 24th 2011 | *SINGAPORE* | from the print edition

A strait-laced state puts the vice into "service economy"



Yes! Now I can pay my parking fine

THERE is no such thing as a foolproof business model. But this comes close: find a region where casinos are largely banned, but whose vast and upwardly mobile population is gambling mad. Then build a casino.

Singapore has done just that, with predictable results. Since opening last April the Marina Bay Sands (MBS) casino has become perhaps the most profitable in the world. Together with Resorts World Sentosa (RWS), another casino complex opened in Singapore last February, it is close to out-grossing the entire Las Vegas strip. Singapore seems to have gone from strait-laced container port to gambling mecca in one bound.

Yet no one is bragging about it. The entrance to the MBS casino is curiously hard to find, tucked away in the basement. Neither casino is advertised anywhere in Singapore. For decades Singapore's government resisted pressure to allow casinos at all, fearful of the crime and social ills they might breed. When it finally relented, it insisted that access to the casinos by Singaporeans should be controlled. Foreign tourists enter free but locals must pay a hefty S$100 ($77). Also, the casinos must be part of larger entertainment complexes.

MBS, which is owned by America's Las Vegas Sands, markets itself as a business and convention centre. Its 57th-floor "skypod", which seems to balance precariously atop three curving towers, is widely admired. Its infinity "skypool" is now the go-to destination for starlets who wish to splash around in bikinis for the cameras. It also has the world's biggest ballroom and a perfectly humungous shopping centre. RWS, owned by Malaysia's Genting, projects itself as a family resort: it boasts a large Universal Studios set, as well as the obligatory fun rides. The operators stress how little of their floor space is occupied by the casinos (just 3% at MBS). But who are they kidding?

An estimated 85-90% of the resorts' takings come from gaming. And those takings are sweet: Aaron Fischer, an analyst at CLSA, a broker, estimates that the two resorts raked in about $5 billion in their first year-more than triple what some people expected. Mr Fischer predicts that this year they will take $6.5 billion. That would be close to Las Vegas but well behind Macau, the only place in China where casinos are allowed, and which has more than 30.

Thanks to low taxes-roughly 17% compared with Macau's 39%-Singapore's casinos are fabulously profitable. Mr Fischer reckons that RWS will earn $2 billion this year, enough to pay back the costs of building the entire 47-hectare site in little more than two years. Between April and November last year the two resorts paid S$420m in taxes. This year the island's economy is expected to grow by 6-7%, of which the resorts will account for a quarter. Singapore can't believe its luck.

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An online scandal in China

Alibaba and the 2,236 thieves

Feb 24th 2011 | *HONG KONG* | from the print edition

China's top e-commerce firm fights to win back customers' trust

THE founders of eBay used to say that their real accomplishment was neither their clever technology nor the marketplace they created. Rather, it was to build trust between people who had never met.

Alibaba, China's leading e-commerce platform, faces the same challenge, but more so. It operates in a country where fraud is rife. And it has grown at a dizzying pace: 56m people use its business-to-business website, it claims, and 370m use Taobao, its online mall. This week it ran into trouble. On February 21st, in a filing with the Hong Kong Stock Exchange, Alibaba admitted that it had granted "gold" status (a mark of supposed integrity) to 2,236 dealers who it says subsequently defrauded buyers.

David Wei, the chief executive of Alibaba.com (the listed part of Alibaba Group, which is mostly private) and Elvis Lee, the chief operating officer, resigned to accept responsibility. Neither was personally implicated, but the company said an internal investigation had found that about 100 sales staff and "a number of supervisors and sales managers" were "directly responsible in either intentionally or negligently allowing the fraudsters to evade" various controls.

The frauds started coming to light in 2009. The company set up a compensation fund, which has so far paid out $1.7m to 2,249 buyers. More claims are inevitable, and Alibaba has not yet offered an estimate as to how much it will have to pay out. Whatever the number, it will be dwarfed by the damage to Alibaba's reputation as a place to find reliable Chinese suppliers and buyers.

The scandal has generated conflicting responses. One view, which the company favours, is that Alibaba's reaction demonstrates its underlying integrity. It investigated the reports of fraud thoroughly and was forthcoming in publishing details, in sharp contrast to some other scandal-tainted Chinese firms.

Sceptics retort that Alibaba had little choice. The scams struck at the heart of its brand. Traders on its website who pay a fee and submit to third-party checking can be labelled "gold" suppliers. This tells buyers that they are trustworthy. Had Alibaba done nothing, this verification system would quickly have become worthless. As it was, the firm's shares dropped nearly 15% after the announcement.

Alibaba's internal investigation attributed the fraud to "the pursuit of short-term financial gain at all cost" by salespeople and others. No doubt, but it emerged at a time when Alibaba's broader business prospects have seemed to be dimming. The firm has been wooing new customers at a terrific pace, but even before the scandal broke its shares had fallen by more than half from the bubbly days of 2007.

Unlike Western e-commerce platforms, Alibaba charges no commission on sales, making its money from extras such as fees for gold status. A new rival, DHgate, charges 3% of the value of each transaction. If it is viable, it may be because a market is developing between global suppliers and buyers that is more conventional in some ways-the two sides know one another-but modern in others, in that payments that once had to go through a bank can now be made online. In a market as rapidly evolving as Chinese e-commerce, no company has a secure franchise.

The high-profile chairman of Alibaba Group, Jack Ma, issued a letter saying that the firm would prosper only by "holding on to our ideals and our principles". Despite his vocal determination to put his house in order, customers may not be entirely reassured.

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Very big ships

The Danish armada

Feb 24th 2011 | from the print edition

Maersk orders ten colossal vessels



THEY will be the biggest container ships ever. And thanks to the scrappers, they will be the biggest vessels of any kind afloat when the first of them is launched in 2013. Maersk Line, a Danish shipper, announced on February 21st that it had ordered ten colossal vessels for $1.9 billion from South Korea's Daewoo Shipbuilding, with an option to order 20 more. This new Danish armada will alter the economics of container shipping.

Maersk's new "Triple-E" ships (see artist's impression above) will carry 18,000 boxes each, 2,500 more than the biggest container ship currently in service, which is also operated by Maersk. The new vessels will use 50% less fuel per container than the present average. With oil sailing past $100 a barrel, that will be good news both for the environment and for Maersk's profits.

The new ships will ply the routes between Asia and Europe, arriving in Europe packed with Chinese-made TVs and fridges but sailing back much lighter. Container shipping has bounced back quickly from the post-credit-crisis lows of 2009. The recovery in shipping in the first half of 2010 took many in the industry by surprise, as China's resilience was buttressed by growth in parts of Europe-particularly in poorer countries such as Russia and Turkey-and in America.

On February 23rd Maersk announced whopping profits of $2.6 billion for 2010. Shipping rates are rising and Maersk reckons global trade could grow by 6-8% this year. Clarksons, the world's biggest shipbroker, is predicting something closer to 10%.

The future for the other type of cargo ship-bulk carriers, which transport coal, iron ore, grain and so forth-is less rosy. The Baltic Dry Index, a measure of shipping rates for bulk goods, has foundered. The reason is that capacity has increased, explains Michael Lewis of Deutsche Bank: the worldwide bulk fleet is expected to grow by 16% this year.

Bulk ships are the mirror image of container ships: they sail for China fully laden and return nearly empty. When China's demand for raw materials surged, sending the Baltic Dry Index soaring to 11,793 in 2008, shippers ordered many more ships. Too many. The bulk fleet now weighs in at 623m tonnes, with another 255m tonnes on the order books. The index has collapsed to under 1,300, a 90% drop.

The container-shipping industry has fared better because it is less fragmented. There are only 20 or so global container carriers. Maersk's fleet is around 500-strong; most bulk carriers own only a handful. So container lines found it relatively easy to take out excess capacity during the 2009 downturn, and are bullish in a big way now that good times are back.

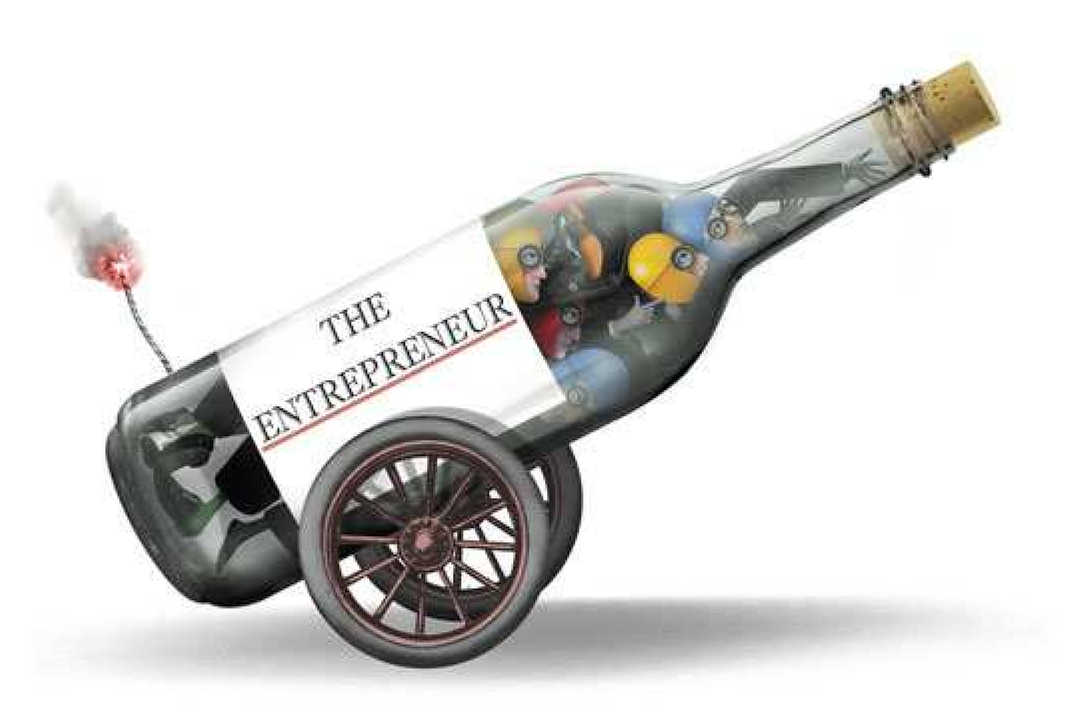
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Schumpeter

Uncorking enterprise

Feb 24th 2011 | from the print edition

Policymakers are desperate to promote enterprise. A new index could help



THE firestorm in the Middle East was sparked by a single act of protest: Muhammad Bouazizi, a young Tunisian fruit-seller, set himself on fire when municipal inspectors made it impossible for him to eke out a modest living. He later died of his injuries.

Since then the fire has found all sorts of fuel, from the Arab street's desire for democracy to its revulsion at doddering kleptocrats. But Mr Bouazizi's problem has never been far from people's minds. More than a third of the region's young people are unemployed, it is estimated. Even more are stuck in dead-end jobs.

High youth unemployment is not confined to the developing world: 20% of young Britons and 40% of young Spaniards are resting. But the problem is explosive in countries that combine lots of youngsters with fragile institutions. The labour force in the developing world (minus China with its one-child policy) is set to increase by 50% by 2050. In sub-Saharan Africa it is set to double.

How to find work for all these young hands? The answer may lie with entrepreneurs. High-growth start-ups are the best generators of new jobs (the Kauffman Foundation, an American outfit devoted to entrepreneurship, calculates that between 1980 and 2005 nearly all net job creation in America took place in firms that were less than five years old). They are also the firms most likely to raise productivity, a basis for economic growth. They create jobs that did not previously exist and solve problems that people assumed were part of the natural order of things.

Various economists have designed tools to help policymakers judge how friendly their countries are to enterprise. The Heritage Foundation, a conservative think-tank, produces an annual index of economic freedom. The World Bank measures red tape. The Economist Intelligence Unit, a sister organisation of *The Economist*, ranks business environments. Transparency International monitors corruption. The World Economic Forum keeps track of national competitiveness. And the Global Entrepreneurship Monitor (GEM), produced by a consortium of academics, tries to measure countries' success in breeding new businesses.

GEM produces the most exciting, yet also the most disappointing of these tools. Exciting, because it focuses on the outcome-business creation-rather than the policies that foster it. Disappointing, because it fails adequately to distinguish between high-impact and low-impact entrepreneurs. By focusing on quantity rather than quality it bundles together street hawkers with the founders of Facebook. Thus, it implies that countries become less enterprising as they become richer. In poor countries, many people become entrepreneurs because they have no choice.

Now two academics, Zoltan Acs of George Mason University in Virginia and Erkko Autio of Imperial College Business School in London, have mined much of this material to produce a new index, the Global Entrepreneurship and Development Index, which will be unveiled on March 1st. It focuses on high-growth companies. It tries to measure the ambition of entrepreneurs as well as the prevalence of start-ups. It presents its results in ways that are designed to capture the attention of policymakers. It produces a ranking of 71 countries (for all their faults, nothing makes a politician jump like a league table). It also identifies bottlenecks that prevent countries from doing better.

The index concludes that development and enterprise are correlated. America is the most enterprising big economy. The EU comes second. The rest of the world, including India and China, is far behind. The index spots some interesting wrinkles. On the list of all countries great and small, Denmark comes top and America slips to third place. Four of the five Nordic countries are in the top ten. This suggests that it is possible to combine crackling enterprise with a big welfare state. Japan does abysmally, coming 29th overall and 47th in terms of its attitude to enterprise.

The index is valuable in identifying local bottlenecks. These can be found in many rich countries. Big European countries such as Britain (14th), Germany (16th) and France (18th) all perform below their potential because of a shortage of venture capital (this is puzzling in Britain, the home of one of the world's great financial centres). Developing countries often perform inconsistently. Latin America's high scores for attitudes are undermined by its dismal scores for the ability to capitalise on those attitudes. China fares poorly when it comes to competition and the availability of start-up skills. India has a shortage of venture capital. The capital-rich Gulf states score abysmally on launching new products or starting new companies.

The index is not entirely convincing. Israel is ranked 21st despite having one of the world's most vibrant high-tech industries. Hong Kong comes 23rd despite being abuzz with business. The index follows Michael Porter of Harvard Business School in arguing that countries evolve through stages of development, from "factor-driven" to "innovation-driven". But the striking thing about fast-growing countries such as India and China is that they are a mish-mash of the backward and the modern, with some of the world's most sophisticated companies as well as peasants.

An unlicensed columnist opines

The index will have been worth creating if it encourages British policymakers, say, to address the country's weakness in venture capital or China's to boost competition. But it is also worth remembering that countries can do a lot to boost employment simply by getting rid of job-killing regulations. In America the proportion of workers who need a licence to operate has increased from 5% in 1950 to 23% in 2008. Even hairdressers and florists are required to have one. In the Middle East armies of regulators march around enforcing pointless rules. Muhammad Bouazizi's crime, which provoked the police to upend his cart and spit in his face, was to sell fruit and vegetables without a licence.

Economist.com/blogs/schumpeter

Companies and information

The leaky corporation

Feb 24th 2011 | from the print edition

Digital information is easy not only to store but also to leak. Companies must decide what they really need to keep secret, and how best to do so



IN EARLY February Hewlett-Packard showed off its new tablet computer, which it hopes will be a rival to Apple's iPad. The event was less exciting than it might have been, thanks to the leaking of the design in mid-January. Other technology companies have suffered similar embarrassments lately. Dell's timetable for bringing tablets to market appeared on a tech-news website. A schedule for new products from NVIDIA, which makes graphics chips, also seeped out.

Geeks aren't the only ones who can't keep a secret. In January it emerged that Renault had suspended three senior executives, allegedly for passing on blueprints for electric cars (which the executives deny). An American radio show has claimed to have found the recipe for Coca-Cola's secret ingredient in an old newspaper photograph. Facebook's corporate privacy settings went awry when some of the social network's finances were published. A strategy document from AOL came to light, revealing that the internet and media firm's journalists were expected to write five to ten articles a day.

Meanwhile, Julian Assange has been doing his best to make bankers sweat. In November the founder of WikiLeaks promised a "megaleak" early in 2011. He was said to be in possession of a hard drive from the laptop of a former executive of an unnamed American bank, containing documents even more toxic than the copiously leaked diplomatic cables from the State Department. They would reveal an "ecosystem of corruption" and "take down a bank or two".

"I think it's great," Mr Assange said in a television interview in January. "We have all these banks squirming, thinking maybe it's them." At Bank of America (BofA), widely thought to be the bank in question, an internal investigation began. Had any laptop gone missing? What could be on its hard drive? And how should BofA react if, say, compromising e-mails were leaked?

The bank's bosses and investigators can relax a bit. Recent reports say that Mr Assange has acknowledged in private that the material may be less revealing than he had suggested. Financial experts would be needed to determine whether any of it was at all newsworthy.

Even so, the WikiLeaks threat and the persistent leaking of other supposedly confidential corporate information have brought an important issue to the fore. Companies are creating an ever-growing pile of digital information, from product designs to employees' e-mails. Keeping tabs on it all is increasingly hard, not only because there is so much of it but also because of the ease of storing and sending it. Much of this information would do little damage if it seeped into the outside world; some of it, indeed, might well do some good. But some could also be valuable to competitors-or simply embarrassing-and needs to be protected. Companies therefore have to decide what they should try to keep to themselves and how best to secure it.

Trying to prevent leaks by employees or to fight off hackers only helps so much. Powerful forces are pushing companies to become more transparent. Technology is turning the firm, long a safe box for information, into something more like a sieve, unable to contain all its data. Furthermore, transparency can bring huge benefits. "The end result will be more openness," predicts Bruce Schneier, a data-security guru.

From safe to sieve

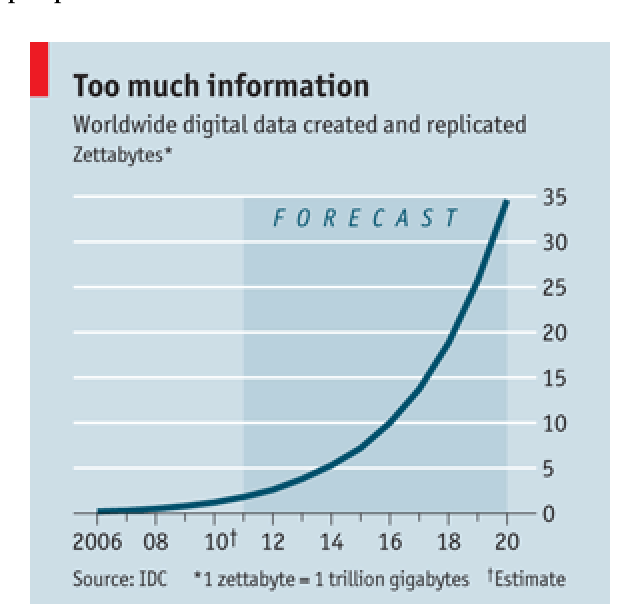
When corporate information lived only on paper, which was complemented by microfilm about 50 years ago, it was much easier to manage and protect than it is today. Accountants and archivists classified it; the most secret documents were put in a safe. Copying was difficult: it would have taken Bradley Manning, the soldier who is alleged to have sent the diplomatic cables to WikiLeaks, years to photograph or smuggle out all the 250,000 documents he is said to have downloaded-assuming that he was not detected.

Things did not change much when computers first made an appearance in firms. They were used mostly for accounting or other transactions, known as "structured information". And they were self-contained systems to which few people had access. Even the introduction in the 1980s of more decentralised information-technology (IT) systems and personal computers (PCs) did not make much of a difference. PCs served at first as glorified typewriters.

It was only with the advent of the internet and its corporate counterpart, the intranet, that information began to flow more quickly. Employees had access to lots more data and could exchange electronic messages with the outer world. PCs became a receptacle for huge amounts of "unstructured information", such as text files and presentations. The banker's hard drive in Mr Assange's possession is rumoured to contain several years' worth of e-mails and attachments.

Now an even more important change is taking place. So far firms have spent their IT budgets mostly on what Geoffrey Moore of TCG Advisors, a firm of consultants, calls "systems of record", which track the flow of money, products and people within a company and, more recently, its network of suppliers. Now, he says, firms are increasingly investing in "systems of engagement". By this he means all kinds of technologies that digitise, speed up and automate a firm's interaction with the outer world.

Mobile devices, video conferencing and online chat are the most obvious examples of these technologies: they allow instant communication. But they are only part of the picture, says Mr Moore. Equally important are a growing number of tools that enable new forms of collaboration: employees collectively edit online documents, called wikis; web-conferencing services help firms and their customers to design products together; and smartphone applications let companies collect information about people's likes and dislikes and hence about market trends.



It is easy to see how such services will produce ever more data. They are one reason why IDC, a market-research firm, predicts that the "digital universe", the amount of digital information created and replicated in a year, will increase to 35 zettabytes by 2020, from less than 1 zettabyte in 2009 (see chart); 1 zettabyte is 1 trillion gigabytes, or the equivalent of 250 billion DVDs. But these tools will also make a firm's borders ever more porous. "WikiLeaks is just a reflection of the problem that more and more data are produced and can leak out," says John Mancini, president of AIIM, an organisation dedicated to improving information management.

Two other developments are also poking holes in companies' digital firewalls. One is outsourcing: contractors often need to be connected to their clients' computer systems. The other is employees' own gadgets. Younger staff, especially, who are attuned to easy-to-use consumer technology, want to bring their own gear to work. "They don't like to use a boring corporate BlackBerry," explains Mr Mancini.

The data drain

As a result, more and more data are seeping out of companies, even of the sort that should be well protected. When Eric Johnson of the Tuck School of Business at Dartmouth College and his fellow researchers went through popular file-

sharing services last year, they found files that contained health-related information as well as names, addresses and dates of birth. In many cases, explains Mr Johnson, the reason for such leaks is not malice or even recklessness, but that corporate applications are often difficult to use, in particular in health care. To be able to work better with data, employees often transfer them into spreadsheets and other types of files that are easier to manipulate-but also easier to lose control of.

Although most leaks are not deliberate, many are. Renault, for example, claims to be a victim of industrial espionage. In a prominent insider-trading case in the United States, some hedge-fund managers are accused of having benefited from data leaked from Taiwanese semiconductor foundries, including spreadsheets showing the orders and thus the sales expectations of their customers.

Not surprisingly, therefore, companies feel a growing urge to prevent leaks. The pressure is regulatory as well as commercial. Stricter data-protection and other rules are also pushing firms to keep a closer watch on information. In America, for instance, the Health Insurance Portability and Accountability Act (HIPAA) introduced security standards for personal health data. In lawsuits companies must be able to produce all relevant digital information in court. No wonder that some executives have taken to using e-mail sparingly or not at all. Whole companies, however, cannot dodge the digital flow.

To help them plug the holes, companies are being offered special types of software. One is called "content management". Programs sold by Alfresco, EMC Documentum and others let firms keep tabs on their digital content, classify it and define who has access to it. A junior salesman, for instance, will not be able to see the latest financial results before publication-and thus cannot send them to a friend.

Another type, in which Symantec and Websense are the market leaders, is "data loss prevention" (DLP). This is software that sits at the edge of a firm's network and inspects the outgoing data traffic. If it detects sensitive information, it sounds the alarm and can block the incriminating bits. The software is often used to prevent social-security and credit-card numbers from leaving a company-and thus make it comply with HIPAA and similar regulations.

A third field, newer than the first two, is "network forensics". The idea is to keep an eye on everything that is happening in a corporate network, and thus to detect a leaker. NetWitness, a start-up company, says that its software records all the digital goings-on and then looks for suspicious patterns, creating "real-time situation awareness", in the words of Edward Schwartz, its chief security officer.

There are also any number of more exotic approaches. Autonomy, a British software firm, offers "bells in the dark". False records-made-up pieces of e-mail, say-are spread around the network. Because they are false, no one should gain access to them. If somebody does, an alarm is triggered, as a burglar might set off an alarm breaking into a house at night.

These programs deter some leakers and keep employees from doing stupid things. But reality rarely matches the marketing. Content-management programs are hard to use and rarely fully implemented. Role-based access control sounds fine in theory but is difficult in practice. Firms often do not know exactly what access should be assigned to whom. Even if they do, jobs tend to change quickly. A field study of an investment bank by Mr Johnson and his colleagues found that one department of 3,000 employees saw 1,000 organisational changes within only a few months.

This leads to what Mr Johnson calls "over-entitlement". So that workers can get their jobs done, they are given access to more information than they really need. At the investment bank, more than 50% were over-entitled. Because access is rarely revoked, over time employees gain the right to see more and more. In some companies, Mr Johnson was able to predict a worker's length of employment from how much access he had. But he adds that if role-based access control is enforced too strictly, employees have too little data to do their jobs.

Similarly, DLP is no guarantee against leaks: because it cannot tell what is in encrypted files, data can be wrapped up and smuggled out. Network forensics can certainly show what is happening in a small group of people working on a top-secret product. But it is hard to see how it can keep track of the ever-growing traffic that passes through or leaves big corporate IT systems, for instance through a simple memory stick (which plugs into a PC and can hold the equivalent of dozens of feature-length films). "Technology can't solve the problem, just lower the probability of accidents," explains John Stewart, the chief security officer of Cisco, a maker of networking equipment.

Other experts point out that companies face a fundamental difficulty. There is a tension in handling large amounts of data that can be seen by many people, argues Ross Anderson, of Cambridge University. If a system lets a few people do only very simple things-such as checking whether a product is available-the risks can be managed; but if it lets a lot of people do general inquiries it becomes insecure. SIPRNet, where the American diplomatic cables given to WikiLeaks had been stored, is a case in point: it provided generous access to several hundred thousand people.

In the corporate world, to limit the channels through which data can escape, some companies do not allow employees to bring their own gear to work or to use memory sticks or certain online services. Although firms have probably become more permissive since, a survey by Robert Half Technology, a recruitment agency, found in 2009 that more than half of chief information officers in America blocked the use of sites such as Facebook at work.

Yet this approach comes at a price, and not only because it makes a firm less attractive to Facebook-using, iPhone-toting youngsters. "More openness also creates trust," argues Jeff Jarvis, a new-media sage who is writing a book about the virtues of transparency, entitled "Public Parts". Dell, he says, gained a lot of goodwill when it started talking openly about its products' technical problems, such as exploding laptop batteries. "If you open the kimono, a lot of good things happen," says Don Tapscott, a management consultant and author: it keeps the company honest, creates more loyalty among employees and lowers transaction costs with suppliers.

More important still, if the McKinsey Global Institute, the research arm of a consulting firm, has its numbers right, limiting the adoption of systems of engagement can hurt profits. In a recent survey it found that firms that made extensive use of social networks, wikis and so forth reaped important benefits, including faster decision-making and increased innovation.

How then to strike the right balance between secrecy and transparency? It may be useful to think of a computer network as being like a system of roads. Just like accidents, leaks are bound to happen and attempts to stop the traffic will fail, says Mr Schneier, the security expert. The best way to start reducing accidents may not be employing more technology but making sure that staff understand the rules of the road-and its dangers. Transferring files onto a home PC, for instance, can be a recipe for disaster. It may explain how health data have found their way onto file-sharing networks. If a member of the employee's family has joined such a network, the data can be replicated on many other computers.

Don't do that again

Companies also have to set the right incentives. To avoid the problems of role-based access control, Mr Johnson proposes a system akin to a speed trap: it allows users to gain access to more data easily, but records what they do and hands out penalties if they abuse the privilege. He reports that Intel, the world's largest chipmaker, issues "speeding tickets" to employees who break its rules.



Mr Johnson is the first to admit that this approach is too risky for data that are very valuable or the release of which could cause a lot of damage. But most companies do not even realise what kind of information they have and how valuable or sensitive it is. "They are often trying to protect everything instead of concentrating on the important stuff," reports John Newton, the chief technology officer of Alfresco.

The "WikiLeaks incident is an opportunity to improve information governance," wrote Debra Logan, an analyst at Gartner, a research firm, and her colleagues in a recent note. A first step is to decide which data should be kept and for how long; many firms store too much, making leaks more likely. In a second round, says Ms Logan, companies must classify information according to how sensitive it is. "Only then can you have an intelligent discussion about what to protect and what to do when something gets leaked."

Such an exercise could also be an occasion to develop what Mr Tapscott calls a "transparency strategy": how closed or open an organisation wants to be. The answer depends on the business it is in. For companies such as Accenture, an IT consultancy and outsourcing firm, security is a priority from the top down because it is dealing with a lot of customer data, says Alastair MacWillson, who runs its security business. Employees must undergo security training regularly. As far as possible, software should control what leaves the company's network. "If you try to do something with your BlackBerry or your laptop that you should not do," explains Mr MacWillson, "the system will ask you: 'Should you really be doing this?'"

At the other end of the scale is the Mozilla Foundation, which leads the development of Firefox, an open-source browser. Transparency is not just a natural inclination but a necessity, says Mitchell Baker, who chairs the foundation. If Mozilla kept its cards close to the chest, its global community of developers would not and could not help write the program. So it keeps secrets to a minimum: employees' personal information, data that business partners do not want made public and

security issues in its software. Everything else can be found somewhere on Mozilla's many websites. And anyone can take part in its weekly conference calls.

Few companies will go that far. But many will move in this direction. The transparency strategy of Best Buy, an electronics retailer, is that its customers should know as much as its employees. Twitter tells its employees that they can tweet about anything, but that they should not do "stupid things". In the digital era of exploding quantities of data that are increasingly hard to contain within companies' systems, more companies are likely to become more transparent. Mr Tapscott and Richard Hunter, another technology savant, may not have been exaggerating much a decade ago, when they wrote books foreseeing "The Naked Corporation" and a "World Without Secrets".

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Oil and the Arab world's unrest

Oil pressure rising

Feb 24th 2011 | from the print edition

The world is badly placed to cope with another oil crisis



A MONTH ago Brent crude oil stood at around $96 a barrel and Hosni Mubarak was ensconced as Egypt's ruler. Now he is gone, overthrown by a display of people power that is shaking autocratic leaders across north Africa and the Middle East. And oil has surged above $115. Little wonder. The region provides 35% of the world's oil. Libya, the scene of growing violence this week, produces 1.7m of the world's 88m barrels a day (b/d).

So far prices have not been pushed up by actual disruptions to supply. Oil hit a peak even before news emerged that some foreign oil firms operating in Libya would cut production and that the country's ports had temporarily closed. As Adam Sieminski at Deutsche Bank points out, oil prices are driven both by current conditions and by future expectations.

Oil markets don't like surprises. The sudden ousting of Mr Mubarak and the unrest in Libya, Bahrain, Yemen, Iran and Algeria (which between them supply a tenth of the world's oil) had added 20% to oil prices by the middle of this week. The big worry is that spreading unrest will culminate in another shock akin to the oil embargo of 1973, the Iranian revolution or Iraq's invasion of Kuwait.

Oil is more global than it was during those previous crises. In the 1970s production was concentrated around the Persian Gulf. Since then a gusher of non-OPEC oil has hit markets from fields in Latin America, west Africa and beyond. Russia

overtook Saudi Arabia as the world's biggest crude supplier in 2009; OPEC's share of production has gone from around 51% in the mid-1970s to just over 40% now.

Yet the globalisation of oil supply has not diminished OPEC's clout as the marginal supplier of crude. Markets are tight at the moment. Bumper inventories, built up during the downturn, are running down as the rich world recovers and Asia puts on a remarkable growth spurt. Demand rose by a blistering 2.7m b/d last year, according to the International Energy Agency, and is set to grow by another 1.7m b/d this year by Deutsche Bank's reckoning. Many other producers are already running at full capacity; OPEC has its hands on the only spare oil (see chart).



If Libya's oil stopped flowing importers would look to Saudi Arabia to make up the shortfall. The oil could probably flow to fill the gap in Europe, Libya's main market, in a matter of weeks. OPEC claims that it has 6m b/d on tap but that looks wishful. Analysts think the true number is nearer 4m-5m b/d, with 3m-3.5m b/d in Saudi hands. That is ample to plug a Libyan gap but would hasten the day when growing world demand sucks up all spare production capacity. Analysts at Nomura reckon that it would only take a halt of exports from Algeria as well to absorb all the slack and propel oil to a terrifying $220 a barrel.

Despite saying it stands ready to produce more oil, Saudi Arabia has so far been reluctant to turn its stopcocks. OPEC claims that the world is amply supplied with oil and seems content with a price around $100 a barrel. Traders hope that Saudi Arabia will boost production stealthily or that OPEC will call a special meeting to raise quotas and calm markets.

The worst-case scenario for oil prices would be some kind of disruption to Saudi supply itself. That concern has become livelier given the unrest in neighbouring Bahrain. The tiny island kingdom produces little oil but is of vital strategic importance in the Persian Gulf, a seaway that carries 18% of the world's oil. America's 5th Fleet uses the country as a base.

The Saudis may also fear that protests by Bahrain's Shia population could spill over their own borders. Saudi Arabia's eastern provinces are home to both its oil industry and most of its Shias, who may also have cause for grievance with their Sunni rulers. The king this week announced $36 billion in benefits for his people. One crumb of comfort is that oil facilities across the region are generally located far from the population centres, where protests tend to be concentrated, and are well defended against anything but a concerted military assault.

What might be the effects of a more general supply crisis in the Middle East and north Africa? The oil shocks of the 1970s spurred the world to build stockpiles, such as the 727m barrels of crude oil in America's strategic petroleum reserve, to be drawn on in the event of upheaval in the Middle East and elsewhere. China is building up a strategic reserve of its own. America's Energy Information Administration puts total rich-world stocks in the hands of governments and industry at 4.3 billion barrels, equivalent to nearly 50 days of global consumption at current rates.

The impact of a crisis would therefore depend on how much oil production was lost and for how long. Even seismic shocks in oil-producing countries might not cut off supplies for very long. Yet the example of Iran shows what can go wrong. Leo Drollas of the Centre for Global Energy Studies, a think-tank, points out that pre-revolutionary Iran pumped 6m b/d. The new regime ditched Western oil experts and capital, and it has never come close to matching that level of output since; it now produces just 3.7m b/d. Middle Eastern oil is largely state-controlled but, as Amrita Sen of Barclays

Capital observes, foreign investment remains vital to north Africa's oil industry. If new regimes emerged that were more hostile to outsiders, that might have a lasting effect on production.

The world could probably weather a short-lived crisis. But the damage if oil prices spiked and stayed high for a long time could be severe for the recovering economies of the rich world. As for the prospects of reducing the importance of the Middle East to global oil supplies, forget it. Strong Asian demand is likely to mean that OPEC's share of oil production rises again as it pumps extra output eastward. A troubled region's capacity to cause trouble will not diminish.

Buttonwood

Killing off the monster

Feb 24th 2011 | from the print edition

A new attempt to explain market inefficiency



HAVING lived through the financial crisis of 2007-08, the man in the street might find the idea that markets are "efficient" incredible. But the efficient-market hypothesis, like a Hollywood monster, has proved very hard to kill off.

From the truism that the average investor could not beat the market after costs, academics developed the insight that obvious market-beating opportunities would quickly be arbitraged away. Market prices were thus the best available estimate of the underlying value of securities and should not be second-guessed by regulators. The good news is that this hypothesis led to the development of low-cost index-tracker funds. The bad news is that it led central banks to sit idly by while asset bubbles inflated.

In the past 20 to 30 years, the behavioural-finance school has been chipping away at the efficient-market hypothesis. Far from being hyper-rational actors, expertly analysing all available information and discounting future cashflows at the optimal rate, individual investors show psychological biases, such as being more willing to take profits than cut their losses. In short, they are more like Captain Kirk than Mr Spock.

Furthermore, markets have displayed a number of anomalies, of which the most startling is momentum-the tendency for share prices that have recently outperformed to keep rising-that are hard to square with the idea of efficiency.

A new book* by Roman Frydman of New York University and Michael Goldberg of the University of New Hampshire tries to steer a third way between the efficient and behavioural schools. They build on an insight of John Maynard Keynes: the factors governing the success of any future investment are too complex to be calculable. Investors face a world marked by "known and unknown unknowns", in the words of Donald Rumsfeld, a former American defence secretary.

The problem is not just that investors do not know how the fundamentals-profits, interest rates and so on-will develop. They also do not know which things other investors will choose to focus on at different times. For example, a study of Bloomberg news stories showed that only 5% mentioned inflation, which was then unusually low, as a factor driving asset prices between 2001 and 2003. By 2005, when inflation had gone back up again, this proportion had risen to 45%.

The authors argue that investors develop strategies to deal with this uncertainty. As the fundamentals change they adjust their forecasts slowly. In the late 1990s, for example, the economic background appeared very favourable, with growth buoyant, inflation low and profits rising strongly. It was hardly irrational that these strong fundamentals were translated into sharply rising stockmarkets.

Eventually, however, equity valuations reached very high levels. Investors realised the danger and started to adjust their behaviour. The result was the sharp stockmarket correction of 2000-02.

The authors call this the "contingent-market hypothesis", which they summarise as follows: "The causal process underpinning price movements depends on available information, which includes observations concerning fundamental factors specific to each market. This process cannot be adequately characterised by an overarching model, defined as a rule that exactly relates market outcomes to available information up to a fully predetermined random error at all time periods, past, present and future."

This is not exactly catchy. Nor is it clear whether the concept will deliver testable predictions by which it can be judged.

Nevertheless the book has one eminently practical implication-that central banks should intervene to limit excessive asset-price swings on the upside, just as they have on the downside. The authors suggest the authorities should announce a (very broad) market range and act if prices move beyond it. Practical measures could involve higher margin or collateral measures for those taking bullish bets.

With regard to the housing bubble of the past decade, the authors argue that official guidance on prices, allied to higher capital requirements for mortgages, would surely have caused the market to self-correct at an earlier stage. Amen to that. The idea that central banks should do nothing, even as speculative investors borrow money from banks to bid prices up to unprecedented levels, deserves a stake through the heart.

* "Beyond Mechanical Markets: Asset Price Swings, Risk and the Role of the State", by Roman Frydman and Michael Goldberg. Princeton University Press

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Japanese banks

Home and away

Feb 24th 2011 | *TOKYO* | from the print edition

Dismal domestic prospects make Japan's big banks look abroad

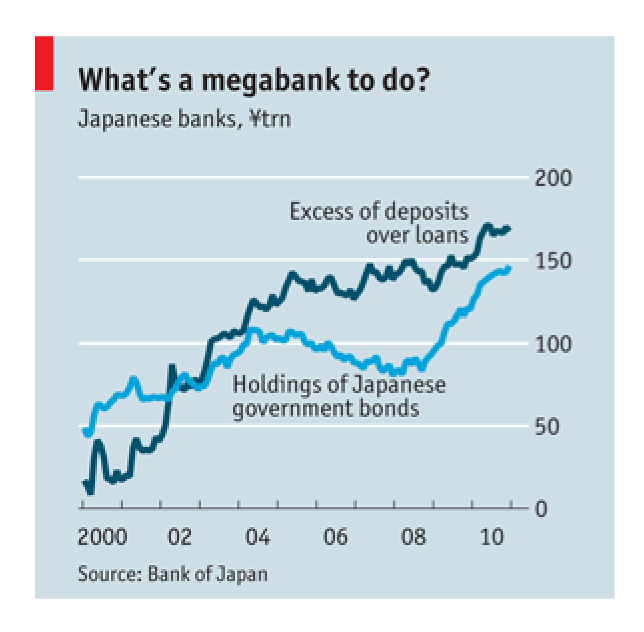


BANKS in Japan have been cast in various roles over the past decades. During the country's economic rise, they were the custodians of the nation's wealth and the catalysts to its industrialisation. Then they were the authors of Japan's bust, and later its victims. Now they want to try acting like proper global businesses.

The industry has cleaned itself up following the non-performing-loan debacle of the 1990s. Its preoccupation with internal problems helped spare it the worst of America's subprime-mortgage fiasco. Japan's three "megabanks"-Mitsubishi UFJ Financial Group (MUFG), Mizuho and Sumitomo Mitsui Financial Group (SMFG)-are stuffed with deposits. MUFG alone has deposits of Â¥129 trillion ($1.6 trillion), making it the second-biggest bank in the world on this measure. The problem is knowing what to do with all that cash.

The banks are profitable. In the fourth quarter of 2010, MUFG's net profit jumped by 150% to Â¥552 billion, SMFG's net profit doubled to Â¥515 billion and Mizuho's soared by 230% to Â¥422 billion. But their returns on equity trail their American and European peers. Their business is largely domestic and the long-term prospects for the Japanese economy are dim.

Loan volumes have fallen for 14 consecutive months. There is little capital investment: companies are sitting on a cash hoard of around Â¥200 trillion. Almost half of listed firms have more cash than debt. And when they need financing, companies increasingly turn directly to the market rather than to banks. The open secret of corporate Japan is that firms despise banks, which pressed bosses to take loans they did not need during the 1980s.



The retail-banking sector is just as bleak. Japanese savers have assets worth about Â¥1,500 trillion, but around half of that is lying in cash or certificates of deposits that earn very little interest. This is not altogether irrational. The Japanese stockmarket has been sickly for years. Persistent deflation means that cash has more buying power over time. The financial crisis has made depositors happier to keep money in the bank, too.

Lenders have long tried to coax savers to shift into higher-yielding investments. The sales of investment trusts (a sort of mutual fund) have risen: MUFG's income from trusts has jumped by one-third over the past two years. But the market is still undeveloped. And since the banks spruced up their operations by shedding workers and consolidating branches, they now have thin branch networks and employees who are ill-equipped to sell investment products to a cautious public.

With few other options available, Japanese banks have increased their holdings of Japanese government bonds (JGBs). In recent months the megabanks have been sellers of JGBs: the profits help explain their good results last quarter. But JGBs still make up a big chunk of their assets (see chart). On February 22nd Moody's downgraded Japan's credit rating; Standard & Poor's did the same in January. The banks' bond holdings, long seen as ultra-safe, are slowly starting to look more like a risk.

Amid the domestic malaise, the Japanese are eyeing foreign markets. Nomura, a broker, made the splashiest acquisition of all with the purchase of the European and Asian arms of Lehman Brothers. MUFG has bought failed banks in America to roll into Union Bank, a Californian lender with assets of $80 billion. It paid $9 billion for a 21% stake in Morgan Stanley in the heat of the crisis, and says its joint venture with the American investment bank is helping it win lending business abroad. The bank also has ambitions in the area of project finance: in the autumn it bought Royal Bank of Scotland's project-finance loan book. For its part, SMFG debuted on the New York Stock Exchange last year, giving it paper for potential acquisitions in America. Mizuho paid $500m for a 1.6% stake in BlackRock, a huge asset manager.

The banks are busy in their own backyard, too. Japanese firms are very active in China, for example, and the likes of MUFG have built up big businesses following them there. Now the task is to diversify their loan books. SMFG's boss, Teisuke Kitayama, is keen to expand overseas lending to non-Japanese firms in Asia. Mizuho aims for alliances or stakes in local institutions and is hiring throughout the region.

The banks' international ambitions may yet be hobbled by new bank-capital rules. Under Basel 3, firms that are designated "global systemically important financial institutions", or G-SIFIs, have to set aside more equity to guard against unexpected losses. Ever conscious of status and hierarchy, some Japanese banks may not want to be left outside a new premier league of international banks. The lenders say they are well-capitalised in the event they are considered G-SIFIs; analysts generally agree. Yet Japanese banks cannot pursue many more foreign deals until they know how much capital they will need.

Previous forays abroad have not ended well. Japanese bankers have a reputation for arriving late, paying too much, mismanaging things and then leaving with losses. Most analysts (privately) say that success is no more likely this time round. The top brass in Tokyo are too insular. Banks continue to parachute in Japanese executives to run operations abroad rather than picking talented foreigners. The megabanks promote their leadership in formation from the various institutions out of which they were cobbled together.

Escaping their domestic obligations will not be easy, either. In 2009 the government forced Japan's banks to accept a three-year debt moratorium for small companies, which quickly soared into the trillions of yen. In January it leant on megabanks to ease life for thousands of small firms stung by losses on foreign-currency derivatives. The banks may have ambitions to play a starry new role, but at home and abroad they will have a hard time not being typecast.

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Portugal under siege

The winter of living dangerously

Feb 24th 2011 | *LISBON AND LONDON* | from the print edition

Chronically weak growth is Portugal's gravest problem



AFTER Ireland and Greece, financial markets have lined up Portugal as the next domino to be toppled in the euro area's sovereign-debt crisis. A tense start to the year, as Portuguese bond yields rose, was followed by only a brief period of calm. Investors now seem less and less willing to give the government of Jose Socrates the benefit of the doubt.

Since early February yields on Portuguese ten-year government bonds have been hitting euro-era highs above 7%. That level of borrowing cost is unsustainable for anything other than a short period; indeed, analysts at Barclays Capital think the threshold is 6%. Spreads between these distended borrowing costs and those on German bunds have widened to more than 4%; a year ago they were around 1%.

Portugal is vulnerable not because it is an identikit version of either Greece or Ireland, but because it shares some of the symptoms of both those afflicted economies. Portugal avoided the property-market frenzy that saddled Irish banks with bad debts too big for the state to bear on its own. But Portuguese banks nonetheless have lowish capital ratios and are among those addicted to liquidity support from the European Central Bank because they struggle to secure funding in international wholesale markets.

The resemblance to Greece is fiscal, though again Portugal's plight is less extreme. Government debt stood at 83% of national output at the end of 2010 compared with Greece's 140%. But Portugal's fiscal malaise is longstanding. As early as 2001 it became the first country to breach the 3%-of-GDP borrowing limit set by the European stability and growth pact. Since then it has run a string of deficits, peaking at 9.3% of GDP in 2009.

The government has set out plans to lower the budget deficit to 7.3% of GDP in 2010-a milestone it says has been passed-and 4.6% in 2011. Last year's improvement was helped by a manoeuvre in which Portugal Telecom's pension funds were transferred to the state. By contrast, this year's austerity measures, involving a fiscal tightening of 4% of GDP, are genuinely tough. Public-sector pay is being cut by 5% and taxes are being cranked up. But investors fret over whether the strong medicine will prove too much for a chronically weak economy, which may in turn prevent a viable fiscal turnaround.

Even before the recession GDP was barely crawling along, with growth averaging a miserly 0.7% a year over the past decade (see chart). The downturn itself was less serious than in the euro area as a whole-output fell by 2.5% in 2009-and there was a recovery in 2010. But the economy faltered in the final quarter of last year, when GDP fell by 0.3%. Portugal's central bank is forecasting a return to recession, with GDP falling by 1.3% in 2011.

What Portugal needs more than anything is an overhaul of its rigid labour market to foster greater competitiveness. Along with other Mediterranean countries, its economy lost ground to Germany's over the past decade and now needs to regain it. Reducing labour costs and boosting productivity is all the more important since Portugal is exposed to relatively low-tech areas of activity such as textiles that are vulnerable to competition from developing countries.

Reforms of that sort take time, however. Whether or not Portugal can avoid becoming the next domino to fall may no longer be in its hands. If European leaders fail to present credible plans to resolve the sovereign-debt crisis at their summit in March, that may well seal Portugal's fate.

The G20 process

Congregate, implicate, obfuscate

Feb 24th 2011 | from the print edition

Global imbalances are bad, and it's all your fault

"IT MEANS what it means what it means, just like a rose is a rose is a rose." That is how Christine Lagarde, France's finance minister, explained the statement on what to do about global economic imbalances issued after a meeting of her G20 peers in Paris. She might have said: "just like fudge is fudge is fudge."

The ministers agreed to agree by April on a set of "indicative guidelines" which would be used to assess countries' domestic and external balances. The ministers stressed that these were "not targets". They would be set with "national or regional circumstances" in mind. When the guidelines which are not targets materialise, they will take "due consideration of exchange-rate, fiscal, monetary and other policies".

The verbal contortions reflect deep divisions, a sense of which can be gleaned from a series of papers on imbalances written by G20 central-bank governors at the request of the Bank of France*. (France is the G20's current chair.) All the central bankers acknowledge that imbalances are a problem, and that a solution will involve some degree of policy co-ordination. Each proceeds to play down the role of his own country.

Muhammad al-Jasser of Saudi Arabia is at pains to emphasise that "the surpluses of the oil-exporting economies of the Gulf [are] overstated as a problem." Masaaki Shirakawa of Japan, another surplus country, advises against getting too hung up on current-account imbalances. America's Ben Bernanke concedes that domestic policies, including "unusually low" interest rates, fuelled America's housing boom-but blames excess emerging-market saving for the low rates.

Governors in countries with lots of foreign-exchange reserves have justifications to offer. Sergey Ignatiev, who heads Russia's central bank, writes that building up reserves is an "objective necessity" in the absence of decent international loan facilities. Argentina's central-bank governor argues that the "accumulation of foreign-exchange reserves is a powerful instrument of self-insurance."

Western governors put more stress on exchange rates. Mark Carney of Canada says that "real exchange-rate adjustment ...will be critical for the rebalancing of global growth." Italy's Mario Draghi and France's Christian Noyer agree.

Their implicit target is China. Predictably enough, Zhou Xiaochuan of the People's Bank of China reckons that simple adjustments in nominal exchange rates cannot influence savings behaviour. In discussing the link between high savings rates and inadequate social-security systems, he says at one point that the connection "is based on the assumption that human behaviours are rational." Looking at the blame-shifting among his peers, that may be unwise.

*Banque de France Financial Stability Review, February 2011 www.banque-france.fr/gb/publications/rsf/rsf_022011.htm

Credit ratings

Downgrading expectations

Feb 24th 2011 | *NEW YORK* | from the print edition

Reducing reliance on ratings is a worthy goal, but not easy

MIGHT ratings be the worst form of credit assessment apart from all the others? Dubious appraisals by the big agencies-Moody's, Standard & Poor's (S&P) and Fitch-contributed to the crash. Their ratings of corporate debt may have held up well, but they were way off in structured securities, not a lot better in sovereign debt, and now their municipal-bond ratings, too, are under fire. Downgrades also amplify procyclicality. Cutting AIG's debt rating in 2008, for instance, sent investors rushing for the exit.

Ending this dependence is a priority for the Financial Stability Board, which co-ordinates the G20's financial policies. It has asked standard-setters and regulators to find ways to pull ratings from bank-capital requirements, rules on investment-fund holdings, margin agreements and so on.

Reliance on external ratings has already been cut in some places, including Japan (for securities registration) and Argentina (for pension-fund investments). Elsewhere, America has gone further than the European Union. The Dodd-Frank act on financial reform takes a hard line on ratings, requiring their removal, or replacement by "appropriate" alternatives, within two years. The Securities and Exchange Commission (SEC) recently proposed replacing an acceptable rating with a minimum volume of past issuance as the eligibility standard for so-called shelf registrations of debt securities. Similar proposals are expected on investments by money-market funds and capital standards for brokers.

Not all of the ratings giants are resisting the attack. S&P has publicly backed the removal of ratings from rules. Its boss, Deven Sharma, insists his firm "can convince markets that we have something to offer, with or without a regulatory stamp". The less hard-wired into deal-documentation ratings are, the easier it may be for the industry to argue that its judgments are mere opinions, protected by free-speech laws, and to dodge liability for flawed ratings.

It is one thing to identify the shortcomings of ratings, quite another to find alternative standards that are clearly better. Some approaches have borne fruit. The National Association of Insurance Commissioners hired the advisory arm of PIMCO, a big fund manager, in 2009 to develop alternative risk-based capital requirements for the industry's holdings of residential mortgage securities. The regulators says the switch has produced more accurate calculations. But the search for alternatives in other areas is proving tough.

Some suggest replacing corporate and sovereign ratings with credit-default-swap prices, but these too can be procyclical. The problem with using past debt issuance, as the SEC has proposed with shelf registrations, is that it discriminates against smaller companies. There are legitimate worries about replacing ratings in capital requirements, too. One suggestion is to allow a bank to reduce an asset's risk weighting if it can prove to supervisors its ability to evaluate the credit's specific risks. But it isn't clear that regulators and banks would be more adept than agencies at judging such risks. And unless Dodd-Frank is watered down, America could have problems meeting the global rules known as Basel 3 because they will rely more on ratings.

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Entertainment insurance

Break a leg

Feb 24th 2011 | *NEW YORK* | from the print edition

The glamorous side of insurance



Do you have the claim forms with you?

WITH categories like "sound mixing", "make-up" and "art direction", this weekend's Oscars ceremony appears to celebrate almost every aspect of film-making. Insurers, however, do not make the red carpet, which may be why Fireman's Fund has started nominating the year's "riskiest film". This year's winner is "Salt", a spy thriller packed with stunts. Its star, Angelina Jolie, completed many of them herself, setting the hearts of actuaries racing everywhere.

A lot can go wrong on a set or a stage. "Spider-Man", a troubled $65m Broadway musical that has yet to open formally, saw one of its performers plunge unheroically to the ground during a show. By their nature, celebrities are hard to replace. In August Procter & Gamble, a consumer-goods firm, took out a $1m policy to cover the flowing locks of Troy Polamalu, an American footballer who does shampoo ads for it.

Calculating risk can be highly subjective. "The actuarial knowledge we can provide is more grey than black and white," says Joe Addison, the boss of the entertainment group at Aon, a broker. When insuring TV shows, for example, insurers look at the medical history of the actors, the temperament of the director, the number of stunts and where it will be shot. Sometimes they suggest changes to the script to lower risk.

For years entertainment insurance has been a small but profitable niche. But fewer films and concerts are getting financing now, causing insurers to compete harder for business. Mainline firms are moving into the sector as well; new insurers are preparing to launch.

Rising demand in other areas helps compensate. Producers are becoming more interested in terrorism cover, says Doug Mewhirter of Royal Bank of Canada. Insurance that covers losses if a film or television show is leaked online is becoming more common, and the growing popularity of web series and podcasts is driving up the number of policies insurers can write. That won't win them any Oscars, though.

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Economics focus

The canon of economics

Feb 24th 2011 | from the print edition

The best journal in the discipline picks its best papers



ONE hundred years ago, in March 1911, the *American Economic Review* (AER) published its first article-on irrigation in the "sun-blistered" deserts of the western United States. The article described how the "fervid suns of May and June" melted "vast beds of snow and ice", so that "springs and torrents rush down to the lowlands" and "the rivers overflow their banks".

It is fair to say that the journal's prose style has rushed downhill since those first lyrical pages. But if the AER's opening article ranks among the best-written in the review's history, it does not rank among the best. To mark its centenary issue, the journal asked six eminent economists to trawl through the thousands of papers that followed and pick the top 20. The results, with links to all 20 papers, are available online.*

The links are worth clicking on. Many of these papers are more cited than read. They are known not by their full titles, but by the author-and-date shorthand (Modigliani and Miller, 1958; Friedman, 1968; Diamond and Mirrlees, 1971) used in references. Reading them in the original yields some pleasing rediscoveries.

Unsurprisingly, the list includes the 1955 paper by Simon Kuznets explaining why inequality might first rise then fall in the course of economic development. Surprisingly, nowhere in the paper did he actually draw the "Kuznets curve" that is now inseparable from his name. (He described the arc of inequality as a "long swing" instead.) Robert Mundell's 1961 theory of "optimum currency areas", which lays out the conditions for a workable currency union, is now often cited by the euro's critics. Ironic, therefore, to note that Mr Mundell wrote the paper to show why flexible exchange rates were impractical because many nations are not optimal currency areas either. Should every local "pocket of unemployment" have a "separate currency", he snorted.

With one or two exceptions, the chosen papers convey an impression of economics as a tidy, coherent discipline. The subjects covered are traditional: consumption, tax, currencies, inflation, that sort of thing. There are no excursions into sumo or intestinal worms. The furthest off-piste they go is Anne Krueger's 1974 article on rent-seeking, explaining why people may lobby for governments to distort the economy.

The papers are not bereft of whimsy, but it is confined to footnotes and asides. A 1972 paper by Armen Alchian and Harold Demsetz, for example, describes how the firm evolved as an organisational form to prevent shirking in team production. A footnote explains why sportsmen do not shirk enough, overinvesting in their skills. (Teams care about coming top, as much as they care about being good, so if teams collectively agreed to lower their standards, they could achieve the same league rankings with less effort.) The two economists also explain why professors get away with "turpitudinal peccadillos" like stealing office stationery.

This consensus on the proper subject of economics also extends to method. The chosen economists mostly go about their business in a consistent way, refining, extending or occasionally bending a shared framework of analysis. Some of them make their colleagues' lives easier by suggesting convenient tricks and techniques to make a theory testable (such as the consumer-demand equations set out in 1980 by Angus Deaton and John Muellbauer), to make a notion easy to model (see the 1977 paper by Avinash Dixit and Joseph Stiglitz on differentiated products and increasing returns to scale) or both (the production function pioneered in 1928 by Charles Cobb and the inimitable Paul Douglas).

Several papers spot a real-world phenomenon that sits uneasily with the discipline's ruling assumptions. Why do people in developing countries leave undermanned farms to languish in urban unemployment, for example? The papers then show that one or two tweaks to the assumptions can bring the problem to heel-in this instance, the artificially high wages paid by city jobs offset the smaller chance of landing one.

Thirty-somethings

The most recent entry to the top 20 is Robert Shiller's 1981 paper documenting the excessive volatility of stock prices. Nothing else in the past 30 years made the cut-even though submissions to the AER have swelled in that time and its acceptance rate has plunged. Douglas Bernheim, one of the six pop-pickers, says that each of them would probably have included "at least a couple of more recent papers" on their list. "But as we move from older to younger papers, assessments vary more from person to person."

Why is this? Mr Bernheim points out that younger papers are less time-tested. Economists can only forecast their worth, and these forecasts are rarely convincing enough to supplant one of the proven classics on the list. According to this view, some recent papers will eventually earn broad admiration. It is simply a question of time.

But perhaps it is also a question of the times. Economics has fragmented in the past 15-20 years, both in subject and technique. No aspect of human behaviour is off-limits and a miscellany of methods are in vogue, adding laboratory experiments, randomised trials and computer simulations to the traditionalist's blackboard and chalk. Many of the brightest stars in economics parade their scepticism, insisting on how little economists really know (or indeed how little real economics they know). The discipline is more exciting, ingenious and intrepid as a result. But it is also unruly and untidy. Some economists are still patiently adding to a cairn of knowledge. Many are throwing rocks.

It is harder than ever to keep abreast of progress. After running four issues a year for the past 100 years, the AER will this year publish six. The journal has already produced four specialised offshoots. Economics is producing a torrent of research, coursing in all directions. The rivers have overflowed their banks.

* http://pubs.aeaweb.org/doi/pdfplus/10.1257/aer.101.1.1

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The twisted history of alchemy

Alchemists, ancient and modern

Feb 24th 2011 | *WASHINGTON, DC* | from the print edition

This year's meeting of the American Association for the Advancement of Science looked at, among other things, the history of alchemy, deep carbon, the health of lonely people, tracking individuals in swarms and stuttering



IN CERTAIN southern English universities of medieval foundation it is still common for those students and academics whose disciplines require no more than lots of books, brains and a means of writing to sneer at the activities of a certain tribe who are known as "northern chemists". Such troglodytes, as their nickname suggests, often come from unfashionable parts of the country. Worse, they think nothing of engaging in actual manual labour in their pursuit of knowledge. That sort of chap is not, my dear, you know, really quite one of us...

In the view of Lawrence Principe of Johns Hopkins University, in Baltimore, such thinking was also around in the 17th and 18th centuries. And it was, as he told this year's meeting of the American Association for the Advancement of Science (AAAS) in Washington, DC, one of the main reasons why modern minds equate the word "alchemist" with "charlatan".

Dr Principe wants to rehabilitate alchemy. He believes that most alchemists were respectable seekers after knowledge and that they were working with well constructed (if ultimately misguided) theories. The reputation of the alchemists, he reckons, was deliberately undermined by gentleman amateurs who were trying to give the emerging science of chemistry the social respectability it needed to sit at the academic high table.

The work of Dr Principe, though, also serves as a useful reminder to modern scientists that even the most cherished theories need to be treated with constant scepticism. This is because, as the alchemists found out, it can be all too easy to see in your results what you want to see, rather than what is actually there.

The philosopher's song

Alchemy's roots lie in Hellenistic Egypt. It was compounded from a mixture of practical knowledge of things like metallurgy, pharmacy and glassmaking with the Greek practice of analysing and theorising about the world that is known as philosophy. These Hermetic ideas (Hermes was the legendary founder of alchemy) were picked up and developed by Arab scholars when Egypt fell to the armies of Islam in the seventh century, and then transmitted to Europe during the scholastic renaissance of the 12th century.

For the next five centuries, Dr Principe thinks, alchemists were the "northern chemists" of Europe. Their discipline, tinged with philosophy though it might have been, was not quite philosophical enough for the intellectuals who were creating the network of universities that spread from Bologna, via Paris, to Oxford, Cambridge and elsewhere. Though it brought practical benefits, and even attracted the attention of eminent scholars like Thomas Aquinas, alchemy was not granted admission to the curriculum.

Moreover, the most famous alchemical pursuit, chrysopoeia (the transmutation of base metals into gold), was viewed with a mixture of greed and terror by the political authorities of the time. Such knowledge might bring enormous wealth to those who had it, but it had the ability to destroy the currency. Many countries passed laws forbidding the transmutation of metals, even as their kings secretly patronised alchemy hoping to gain an advantage over other monarchs. Alchemists, to borrow a phrase from Winston Churchill, were to be on tap, not on top.

And thus it might have remained, but for Robert Boyle, a rich well-connected Englishman, who was interested in alchemy but embarrassed by his interest. In an essay written in 1663 he apologised for his curiosity about this "empty, vain and

deceitful study". Similarly, Herman Boerhaave, a famous Dutch scholar born in 1668, faced colleagues who described his interest in the field as "vulgar". To distinguish themselves from the riff-raff Boyle, Boerhaave and their fellow gentlemen-scientists took to describing themselves as "chymists". Indeed, Boyle's most famous book, "The Sceptical Chymist", was published exactly 350 years ago, in 1661.

Over the next few decades, according to Dr Principe's analysis of their letters and publications, chymists in England, France and elsewhere deliberately distanced themselves from the alchemists, casting themselves as intellectuals, the alchemists as charlatans, and the two activities as distinct. They did not always think alchemical theory was wrong. Dr Principe can find no essays or papers from the period that attempt to refute the idea of metallic transmutation, and some socially respectable chymists were still looking for the secret of chrysopoeia as late as 1760. It was merely that the chymists thought alchemy unrespectable. They did, indeed, succeed in getting chymistry into the academy-even if it is still not quite top-table in the views of some. And they did so, in the end, by being right when the alchemists were not.

The real problem with alchemy-as the title of Boyle's book points out-was not that it was lower-class, but that it was not sceptical enough. Alchemical theories were not stupid. For instance, lead ore often contains silver and silver ore often contains gold, so the idea that lead "ripens" into silver, and silver into gold, is certainly worth entertaining. The alchemists also discovered some elements, such as phosphorous. But in the end, too many alchemists would not let go of their theories, even as knowledge advanced.

The ripening of knowledge

To illustrate how alchemists were thus bamboozled, Dr Principe conducted an alchemical experiment using the notebooks of George Starkey, an alchemist who was born in Bermuda, educated in Massachusetts and then lived in England, where he worked alongside Boyle. The experiment which Dr Principe reconstructed showed just how alchemists might truly have believed they were thinking the right way about the transmutation of metals.

Following Starkey's recipe, a formula that took weeks to prepare, Dr Principe made what Starkey had believed was philosophical mercury-a crucial ingredient of the Philosopher's Stone that would ripen lead into gold. Alchemical theory was rife with botanical analogies of ripening, growth and seeding. When Dr Principe prepared philosophical mercury (actually an amalgam of mercury, gold and a small amount of antimony) according to Starkey's instructions, a strange thing happened. As it solidified, it grew into a treelike structure. For someone primed by his theory to see transmutation as akin to a biological process, this must have been a wonderful confirmation that he was on the right line, and that the Philosopher's Stone was just around the corner.

It was not, of course. What was actually round the corner was disgrace and opprobrium at the hands of the chymists. But there is no shame in honest error. Those who believed, before Copernicus, that the sun goes round the Earth are not regarded as charlatans, even if the clerics who subsequently tried to stop the newer idea being accepted are usually consigned to intellectual purgatory. The pre-Copernicans were merely wrong, not foolish-as, no doubt, many dearly held theories of modern science will turn out to be wrong. Time, then, to rehabilitate the alchemists. They may not have been right. But they were wrong in interesting ways.

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The Deep Carbon Observatory

Going underground

Feb 24th 2011 | from the print edition

A project to reveal more about all the carbon on Earth



A world still full of secrets

THE carbon cycle is the stuff of school books. It is a familiar tale of photosynthesis, forests, farming and fossils fuels. Understanding this cycle is important, both because it sustains life on Earth and because it is bound up with the rate of global warming. But are the outlines of the carbon cycle really that familiar?

At the AAAS meeting in Washington, DC, Robert Hazen of the Carnegie Institution for Science, which is based in the same town, gave a lecture intended to show that this view of the carbon cycle only scratches the surface. Dr Hazen is one of the moving spirits behind a project called the Deep Carbon Observatory, which will be paid for by the Alfred P. Sloan Foundation. Over the course of the next decade it will attempt to understand all the carbon in the Earth, not just the stuff that cycles through the atmosphere, the oceans and living things.

As Dr Hazen pointed out, carbon is the fourth-most-abundant element in the universe, after hydrogen, helium and oxygen. In the Earth, though less common than that, it is reckoned to make up between 0.07% and 3.2% of the planet. But the uncertainty of this range is itself a comment on how little carbon's role in the Earth's overall physics and chemistry is understood. Also uncertain is how much interchange there is between the carbon in the Earth's mantle and core, and the more familiar stuff in the crust, atmosphere and oceans.

Some carbon comes from the mantle to the surface in the form of diamonds. These crystals, which can form only under the intense pressure of the Earth's deep interior, must have been erupted at unbelievable speed (about 100kph) to have survived the journey to the surface intact. At slower speeds they would have turned into graphite, much to the chagrin of brides-to-be everywhere.

How, exactly, diamond forms is an important question. Diamonds are useful as an industrial material as well as gem stones, and they would have many more applications if they could be made cheaply. And another, even more important industrial material, petroleum, may also come from the mantle.

Among petroleum geologists in Western countries, the consensus is that crude oil and natural gas are formed near the Earth's surface from the fossilised bodies of living organisms. Many Russians, though, disagree. They support the 130-year-old idea of their countryman Dmitri Mendeleev (who created the first version of the periodic table of elements). He thought the temperatures and pressures of the mantle would convert carbonates and water into hydrocarbons.

That has, indeed, been done experimentally in the past. And one role of the Deep Carbon Observatory will be to try to do it again in more sophisticated ways. If it turns out that fossil fuels are abiogenic, that probably means they are more abundant than Western geologists think, and may be found in places hitherto thought unpromising.

Abiogenic petroleum could also provide food for one of the most intriguing targets of all for the Deep Carbon Observatory: the bacteria that live in the Earth's depths. Current estimates suggest that half of all the living matter on Earth lives underground, at depths of up to 5km. Some people think the share may be bigger than that. Indeed, there is loose talk of life having originated more than once in the distant past, and of there being entire shadow biospheres of organisms completely unrelated to anything on the surface.

Intriguingly, a few diamonds bear signs that their carbon was once part of living organisms. The ratio between the heavy and light isotopes of the element in their crystals is not quite right for stuff that has come out of the ground. Instead, it matches the ratio found when organic molecules have been through a few rounds of biochemical processing. Clearly there is a lot going on deep in the Earth that is completely unknown to science. With a bit of luck, over the ten years of Dr Hazen's project, the veil of ignorance will be lifted a little.

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Healthy living

Mind and body

Feb 24th 2011 | *WASHINGTON, DC* | from the print edition

The reason loneliness could be bad for your health

SCIENCE has many uses, but it doesn't often produce handy pick-up lines. Recent work on the genetics of disease, however, suggest a way of opening a conversation with that solitary attractive stranger in a bar: loneliness can make you ill.

Lonely people, it seems, are at greater risk than the gregarious of developing illnesses associated with chronic inflammation, such as heart disease and certain cancers. According to a paper published last year in the *Public Library of Science, Medicine*, the effect on mortality of loneliness is comparable with that of smoking and drinking. It examined, and combined the results of, 148 previous studies that followed some 300,000 individuals for an average period of 7.5 years each, and controlled for factors such as age and pre-existing illness. It concluded that, over such a period, a gregarious person has a 50% better chance of surviving than a lonely one.

Steven Cole of the University of California, Los Angeles, thinks he may know why this is so. He told the AAAS meeting in Washington, DC, about his work studying the expression of genes in lonely people. Dr Cole harvested samples of white blood cells from both lonely and gregarious people. He then analysed the activity of their genes, as measured by the production of a substance called messenger RNA. This molecule carries instructions from the genes telling a cell which proteins to make. The level of messenger RNA from most genes was the same in both types of people. There were several dozen genes, however, that were less active in the lonely, and several dozen others that were more active. Moreover, both the less active and the more active gene types came from a small number of functional groups.

Broadly speaking, the genes less active in the lonely were those involved in staving off viral infections. Those that were more active were involved in protecting against bacteria. Dr Cole suspects this could help explain not only why the lonely are iller, but how, in evolutionary terms, this odd state of affairs has come about. For inflammation is an antibacterial response.

The crucial bit of the puzzle is that viruses have to be caught from another infected individual and they are usually species-specific. Bacteria, in contrast, often just lurk in the environment (like tetanus), and may thrive on many hosts (as does bubonic plague, for example). The gregarious are therefore at greater risk than the lonely of catching viruses, and Dr Cole thus suggests that past evolution has created a mechanism (the details of which remain unclear) which causes white cells to respond appropriately. Conversely, the lonely are better off ramping up their protection against bacterial infection, which is a bigger relative risk to them.

What Dr Cole seems to have revealed, then, is a mechanism by which the environment (in this case the social environment) reaches inside a person's body and tweaks its genome so that it responds appropriately. It is not that the lonely and the

gregarious are genetically different from each other. Rather, their genes are regulated differently, according to how sociable an individual is. Dr Cole thinks this regulation is part of a wider mechanism that tunes individuals to the circumstances they find themselves in. Where it goes wrong is when loneliness becomes chronic, and the inflammatory response becomes chronic at the same time.

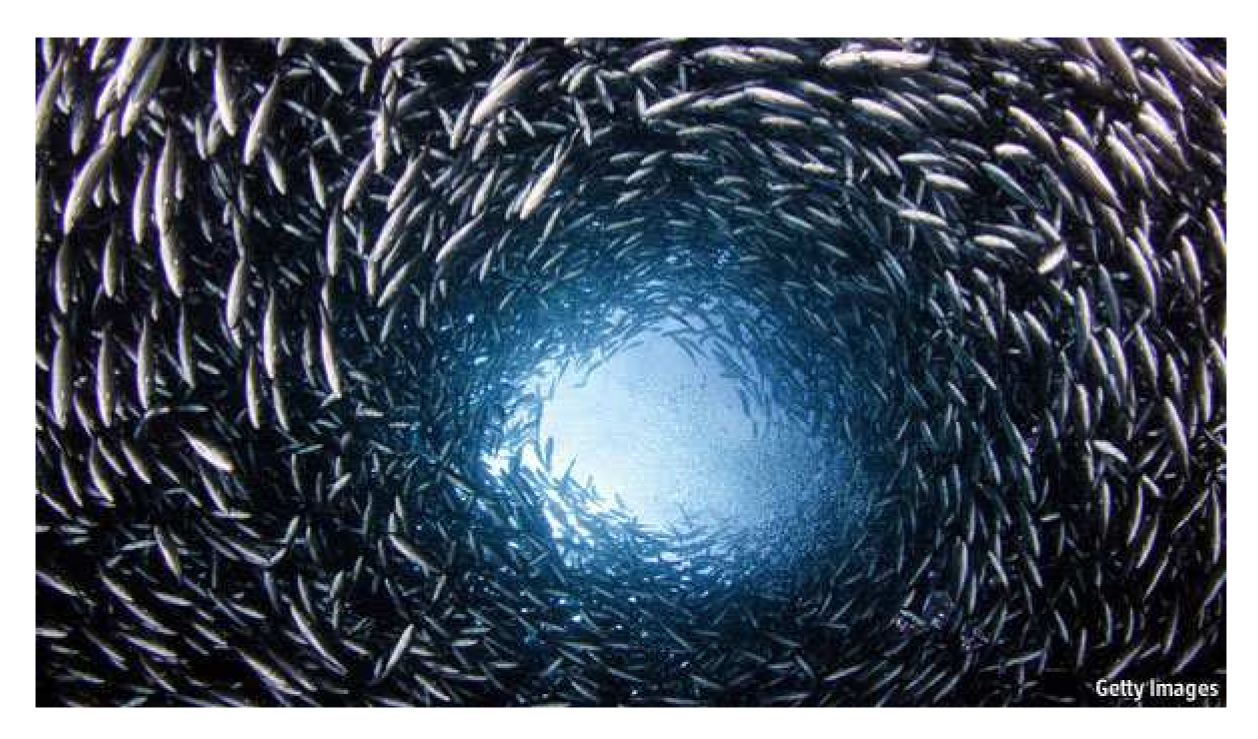
Before civilisation intervened, such chronic loneliness would have been so rare (because isolated individuals are so vulnerable to predation) that evolution would have ignored it. Now, paradoxically, the large population that civilisation makes possible means loneliness is commonplace-and with it consequences that natural selection, which is blind to the future, has not yet had time to deal with.

Collective behaviour

Follow my leader

Feb 24th 2011 | from the print edition

A group's "intelligence" depends in part on its members' ignorance



HUMAN beings like to think of themselves as the animal kingdom's smartest alecks. It may come as a surprise to some, therefore, that Iain Couzin of Princeton University believes they have something to learn from lesser creatures that move about in a large crowd. As he told the AAAS meeting in Washington, DC, groups of animals often make what look like wise decisions, even when most of the members of those groups are ignorant of what is going on.

Coming to that conclusion was not easy. Before lessons can be drawn from critters perched on the lower rungs of the evolutionary ladder, their behaviour must first be understood. One way to do this is to tag them with devices that follow them around-motion-capture sensors, radio transmitters or global-positioning-system detectors that can put a precise figure on their movements.

Unfortunately, it is impossible to tag more than a few individuals in a herd, flock or swarm. Researchers have therefore tended to extrapolate from these few results by using various computer models. Dr Couzin has done quite a bit of this himself. Most recently, he has modelled the behaviour of shoals of fish. He posited that how they swim will depend on each individual's competing tendencies to stick close to the others (and thus move in the same direction as them) while not actually getting too close to any particular other fish. It turns out that by fiddling with these tendencies, a virtual shoal can be made to swirl spontaneously in a circle, just like some real species do.

That is a start. But real shoals do not exist to swim in circles. Their purpose is to help their members eat and avoid being eaten. At any one time, however, only some individuals know about-and can thus react to-food and threats. Dr Couzin therefore wanted to find out how such temporary leaders influence the behaviour of the rest.

He discovered that leadership is extremely efficient. The larger a shoal is, the smaller is the proportion of it that needs to know what is actually going on for it to feed and avoid predation effectively. Indeed, having too many leaders with conflicting opinions results in confusion. At least, that is true in the model. He is now testing it in reality.

Tracking individual fish in a shoal is hard. Fortunately, advances in pattern-recognition software mean it is no longer impossible. Systems designed to follow people are now clever enough not only to track a person in a crowd, but also to tell in which direction his head is turned. Since, from above, the oval shape of a human head is not unlike the oblong body of a fish, this software can, with a little tweaking, follow piscine antics, too.

Robo fish

Dr Couzin has been using a program developed by Colin Twomey, a graduate student at his laboratory, to track individual fish in a tank. The result is not just a model of shoaling fish, but a precise numerical representation of their actual movements and fields of vision. That means it is possible to investigate whether real-life fishy leaders have the same effect on a group as their virtual kin.

Alas, merely observing a shoal does not make it clear which individuals lead and which follow. Instead, Dr Couzin has built a biddable robot three-spined stickleback. A preliminary study of a shoal of ten flesh-and-blood sticklebacks shows that they do indeed mingle with the robot and that they follow its leadership cues as predicted. He is now making a robot predator to see how the shoal reacts to less benign intruders.

If the models are anything to go by, the best outcome for the group-in this case, not being eaten-seems to depend on most members' being blissfully unaware of the world outside the shoal and simply taking their cue from others. This phenomenon, Dr Couzin argues, applies to all manner of organisms, from individual cells in a tissue to (rather worryingly) voters in the democratic process. His team has already begun probing the question of voting patterns. But is ignorance really political bliss? Dr Couzin's models do not yet capture what happens when the leaders themselves turn out to be sharks.

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The science of stuttering

Speech therapy

Feb 24th 2011 | from the print edition

Unravelling the mystery of faltering speech



Cures worthy of a king

DOWN the ages stuttering has been blamed on many things. In the second century Galen pinned it on a dryness of the tongue. In the 17th, Francis Bacon reckoned a stiff tongue was responsible. In the 19th, surgeons suggested too large a tongue. In the 20th, parental neglect and even an unfulfilled urge for oral sex had their moments of fame ("The King's Speech", a film competing for Oscars this week, stresses psychology). The suggested remedies were just as diverse. Galen thought wrapping the patient's tongue in a cloth soaked in lettuce juice might help. Bacon recommended wine. The Victorians wielded scalpels. The psychiatrists, the couch. None of it worked (except in the movies).

These days, as delegates to the AAAS meeting in Washington, DC, heard, the talk is of brain anatomy and genes. Luc De Nil, of the University of Toronto, has been poring over stutterers' brains using positron emission tomography and functional magnetic resonance imaging. He has found that parts of the brain linked to the production of speech are more active in stutterers than non-stutterers, while those involved in perceiving sounds are less so. The two sorts of brain look different, too. Stutterers tend, for instance, to have more densely packed grey matter in the areas associated with processing and producing sounds. Such differences in activity and anatomy, though, must have deeper causes. And, in time-honoured fashion, there is a debate about whether those causes are genetic or environmental.

Dennis Drayna of America's National Institutes of Health argued to the meeting that persistent stuttering is at least partly a matter of genes. It runs in families. Studies of twins suggest a genetic component larger than those known to be involved in high cholesterol and osteoporosis. At least two studies of adopted children suggest that those whose adoptive parents stutter are no more likely to develop the impediment than those taken on by non-stutterers.

To discover which genes might be responsible, Dr Drayna looked at 44 Pakistani families. Marriage between cousins is common in Pakistan, and such inbreeding leads to a high incidence of genetic disorders. Dr Drayna's analysis suggests that stuttering is linked to mutation of a gene called *GNPTAB*-a finding confirmed when the same mutation was subsequently discovered in a number of stutterers from Pakistan and India who were unrelated to the original group of families. In January Dr Drayna and his colleagues published a paper in the *Journal of Human Genetics* tracing the responsible mutation back almost 600 generations, to a common ancestor who would have lived around 14,000 years ago.

Further study of South Asians has shown that mutations in two other genes, *GNPTG* and *NAGPA*, are found in individuals who stutter, but not in non-stutterers. All three affected genes encode enzymes that regulate lysosomes, the cell's waste-disposal units. Two of the mutations involved are also known to cause a rare disease called mucolipidosis. Severe mucolipidosis is fatal within ten years of birth. Even the mild variety has symptoms that include abnormal skeletal development and, sometimes, slight mental retardation.

Fortunately for stutterers, close examination of those with the relevant mutations reveals no symptoms of mucolipidosis. Dr Drayna suspects that both conditions are caused by misfolding of the enzymes in question, but that the details are different. With stutterers, he thinks, a specific group of brain cells involved in speech production is, for an unknown reason, uniquely sensitive to the enzymatic glitch-perhaps producing the patterns seen by Dr De Nil in his brain scanners.

To investigate further, Dr Drayna is now attempting to splice human stutter-causing genes into the DNA of mice. That, of course, raises the question of what a stuttering mouse sounds like. To the human ear, it may not sound like anything. Many murine squeakings are too high-pitched to be perceptible. But ultrasonic detectors should deal with that. With luck, the causes of stuttering should soon be understood better. Whether that results in treatments more effective than lettuce juice and wine is another matter.

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Italy

Avanti

Feb 24th 2011 | from the print edition

As Italy prepares to celebrate the 150th anniversary of its unification next month, some Italians are asking themselves whether it did more harm than good

The Pursuit of Italy: A History of a Land, its Regions and their Peoples. By David Gilmour. *Allen Lane; 447 pages; pound25.* Buy from Amazon.co.uk



THE tourists who flood into Rome's forum, Florence's Uffizi gallery or St Mark's Square in Venice might be surprised to learn that Italy is one of the youngest countries in Europe. It was unified only in 1861, and not until ten years later did Rome take over from Florence as Italy's capital. This youthfulness may help to explain the country's fragility, which is being tested anew under the messily embarrassing rule of Silvio Berlusconi.

David Gilmour's splendid book tells the story of Italy from Roman times. He canters through the early years, with a few diversions to explore the importance of city-states in medieval days or the glorious offshoot that was Venice. But the heart of his book is its account of the unification, or *Risorgimento*, and of Italy's subsequent chequered history.

His broad themes can be summed up in two famous quotations about Italy. One is Prince Metternich of Austria's dismissive 1847 observation that Italy was just "a geographical expression". The other is the comment made in 1861 by Massimo d'Azeglio, a pioneer of unification, that "we have made Italy; now we must make Italians."

Like most foreign visitors who experience Italy's culture, buildings, physical beauty, food and climate, Mr Gilmour, a British historian and journalist, is a passionate fan. That makes his skewering of Italy's myths more striking. Giuseppe Verdi, he insists, may have been a great opera composer but he was neither a great patriot nor a nationalist. The men who

unified Italy, notably Camillo Cavour, Giuseppe Garibaldi (pictured) and Giuseppe Mazzini, as well as Azeglio, were patriots (at least for Piedmont), but by no means heroes. Mazzini was a dreamily unsuccessful revolutionary, Garibaldi an unscrupulous adventurer whose invasion of Sicily in 1860 was illegal and Cavour an old cynic who never travelled south of Pisa.

The book dwells on two other weaknesses in the Italian *Risorgimento*. The first is the lack of enthusiasm of so many Italians. The church was against it-hence the undignified spectacle of Pope Pius IX scampering out of the Palazzo del Quirinale in 1870. Venice never wanted to join. Most important, although many in Naples and Sicily welcomed the takeover from Turin, this reflected disillusion with their Bourbon monarchs, not enthusiasm for Piedmont's Victor Emmanuel II.

Quite soon after 1861 both northerners and southerners were questioning the wisdom of unification. The snobbery of the north towards supposedly backward Naples was (and still is) striking. Yet Naples was for many years the biggest city in the peninsula; it built the first steamboat, suspension bridge and railway in Italy and, even more surprising, was as late as 1800 more liberal than most of the rest of the country.

The second weakness in the *Risorgimento* was an unabashed desire for military success. This theme was well explored in Christopher Duggan's recent history of Italy, "The Force of Destiny". Despite the influence on Italy's fortunes of wars involving France, Austria and Prussia (the German chancellor, Otto von Bismarck, claimed that Italy sprang from three battles beginning with "S": Solferino, Sadowa and Sedan), unification was achieved with little fighting. That left Italy's leaders thirsting for a war to demonstrate their new country's greatness.

This thirst proved a scourge. Some 6,000 Italians were killed in the disastrous battle of Adowa in Abyssinia in 1896. More than 1m died in the first world war, most through incompetence in a conflict that Italy could easily have sat out. An unslaked desire for military glory propelled Benito Mussolini to power in 1922, making him in a sense another child of the *Risorgimento*. Mussolini at least conquered Ethiopia, but for him and his people the second world war was yet another disaster.

The best bit of modern Italian history had to wait until 1945, when Alcide de Gasperi began the country's post-war boom. Although Italy had problems, including a revival of the Mafia and a merry-go-round of weak governments, 50 years of rapid growth have made it a rich country. Its big concern now is the struggle to stay rich-something that years of economic stagnation under Mr Berlusconi, Italy's longest serving prime minister since the war, makes far harder.

Italy's north-south divide remains gaping, too (though, as the author says, there is a less well known east-west divide either side of the Apennines). Indeed, the country's diversity is a constant feature of Mr Gilmour's book. He notes that in 1861 only one Italian in 40 spoke the language (Victor Emmanuel barely did so). He cites surveys from 1960 finding Sicilians ignorant of Italy. And he quotes northerners whose disdain for the south, or *Mezzogiorno*, leads them to call it Africa or Egypt.

Curiously Italy's uneasy and in some ways incomplete unification is now re-emerging as an issue for Mr Berlusconi alongside his squalid legal cases. His government survives thanks to the support of the Northern League, which wants a far more decentralised Italy-and some of whose voters favour a new country, Padania. Perhaps the celebrations of Italy's 150th birthday will reignite national fervour and revive morale. Sadly, shallow politicking is more likely.

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Japan's dark underbelly

Doing justice

Feb 24th 2011 | from the print edition

The fate of an Englishwoman

People Who Eat Darkness: The Fate of Lucie Blackman. By Richard Lloyd Parry. *Jonathan Cape; 404 pages; pound17.99.* Buy from Amazon.co.uk



She was the unlucky one in a million

EVERY foreign correspondent has stories that get under his or her skin-the ones for which the only hope of securing enough column-inches is to write a book. For Richard Lloyd Parry, who has spent 15 years in Tokyo for two British newspapers, the *Independent* and then the *Times*, it was one which linked his homeland with his adopted home: the death of Lucie Blackman, a 21-year-old Briton who was killed in Japan in 2000.

"People Who Eat Darkness", however, is more than just the work of a journalist with a wealth of unused notes. It is a page-turning if horrifying read and a triumph of thorough, fair-minded reporting and of empathy. He does justice to the sadness of the story and all its leading characters.

Vivacious and adventurous, if plagued by self-doubt, Lucie set off with a friend to work in the hostess bars of Tokyo's Roppongi district, in the hope of paying off her debts. Weeks later she disappeared. Months afterwards her dismembered corpse was recovered from a beach cave.

A wealthy property developer of Korean descent, Joji Obara, was arrested. In 2007 he was acquitted of her murder, for lack of conclusive evidence, but sentenced to life in prison on eight other counts of rape and one of rape and murder. Prosecutors and the defence both appealed against the verdicts. In 2008 he was found guilty of abducting Lucie, of attempting to rape her and of dismembering and hiding the body; but not of killing her. The Supreme Court is to pronounce on another appeal, by Mr Obara, later this year.

In ten years of covering this story, Mr Lloyd Parry seems to have befriended all of Lucie's grief-stricken family. He is understanding towards Tim, her father, who was long estranged from her mother, and who became a hate figure in the British tabloid press in 2006 when he accepted Â¥100m (then $840,000) from Mr Obara in return for signing a document that questioned some of the evidence against him.

Explaining Mr Obara's perversions and cruelty and how he was allowed to get away with them for so long is harder. In trying to do so, Mr Lloyd Parry says a lot about Japan. He writes of the difficult history of ethnic Koreans there, and of the mysteries of *mizu shobai*, or the "water trade", in which female companionship in infinite gradations of intimacy and humiliation is traded for money. But Mr Obara remains an inexplicable monster.

Also shocking are the failings of the policing and judicial system. Mr Lloyd Parry partly blames the prejudices of the Japanese police about the foreign women who work in the water trade for their failure for so long to catch a serial rapist

who used chloroform and knockout drugs to subdue his victims and filmed himself raping them. The difficulty in securing a guilty verdict was in part a result of the police's reliance on confessions for almost all convictions. In interrogating Mr Obara, they were victims of "extremely bad and unusual luck: that one in a million in Japan, the dishonest criminal".

"People Who Eat Darkness" may fuel a Western prejudice that Mr Lloyd Parry himself tries to counter: that such crimes are peculiarly "Japanese"-perpetrated by desperate, repressed men infatuated with a myth about Caucasian sexual availability. Already, her case is often confused with the rape and murder of another British woman, Lindsay Hawker, in 2007. But in fact, violent crime is far rarer in Japan than elsewhere. The "Japaneseness" may lie in the illusion of safety which induced the two women to let their guard down. It is not Japan that is weird and terrifying, nor is it the Japanese alone who "eat darkness"; it is simply "people".

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Odessa

Mutiny and melancholy

Feb 24th 2011 | from the print edition

The many influences that made Odessa

Odessa: Genius and Death in a City of Dreams. By Charles King. *W.W. Norton; 336 pages; $27.95. To be published in Britain by W.W. Norton in May; pound19.99.* Buy from Amazon.com, Amazon.co.uk

MYSTERIOUS and melancholy, with the exotic airs of the Black Sea suffusing its stones, Odessa defies categorisation. It is Russian to its core, yet in many ways not Russian at all. "Scouted by a Neapolitan mercenary, named by a Russian empress, governed by her one-eyed secret husband, built by two exiled French noblemen, modernised by a Cambridge-educated count, and celebrated by his wife's Russian lover": with this thumbnail historical sketch Charles King, an American academic, opens his finely written and evocative portrait of the city, which is now a reluctant and semi-detached part of independent Ukraine.

Its historical roots are oddly shallow. In 1789 Russian soldiers under a remarkable young Spanish-Irish officer called Jose Pascual Domingo de Ribas y Boyons (later to be known in Russian as Osip Deribas) chased the Ottoman forces from the barracks hamlet of Khadjibey. He immediately spotted the site's importance: a proper military force based there could control the mouths of the Danube, Dniester, Dnieper and Bug-four of Europe's greatest rivers. The wide bay could be a harbour, giving Russia for the first time access to an ice-free sea. De Ribas resolved to build a city that (unlike his native Naples) would be constructed on rational lines, with a grid of streets, wide avenues and modern public buildings. It was that, coupled with the city's cosmopolitan bustle and thriving trade, that captivated Mark Twain when he visited Odessa in 1867: wherever he looked, he wrote, "we saw only America".

In keeping with the Russian fascination with the Hellenic heritage of their new southern domains, the city gained a Greek-sounding name. Legend has it that Catherine the Great ordered the change from Odessos (after the Greek hero Odysseus) to a novel, feminine form.

Mr King unpicks the biographical, religious and political strands of the following two centuries. Young Alexander Pushkin disports himself in the city's brothels, scandalising society first with his impromptu dinner-party versifying and then with a too-public affair with Lise Vorontsov, wife of the governor. As a punishment Pushkin, nominally a civil servant, was asked to do some work: to write a report on a plague of locusts that was paralysing the city. Outraged, Russia's greatest poet left town. The young Lev Bronstein (later Leon Trotsky), Isaac Babel, a writer, and Vladimir Jabotinsky, one of the fathers of modern Zionism, were among later emigres.

Odessa's combination of beauty and squalor persists to this day. The sweeping steps that rise from the harbour to the statue of the city's greatest and best-loved governor, Armand, Duc de Richelieu, are overshadowed by an ugly modern ferry terminal; the grand old hotels are slovenly and ill-run. A reputation for corruption is all too often justified.

That is a pity. But the saddest days are in the past. The city was scene to some of the worst pogroms in the tsarist empire, and to a savage occupation by Romania's wartime pro-Nazi leaders, during which almost all the 230,000-plus Jews living in the city perished; just 48 were left at the war's end. The Soviet rulers who regained the city in 1944 dressed up its resistance record, giving it one of four initial "Hero-City" honours, along with Stalingrad, Leningrad and Sebastopol. Mr King casts an unsparing light on the rather less heroic reality, of collaboration and denunciation.

He also gives a neat account of the city's greatest cinematographic appearance: in Sergei Eisenstein's 1925 film of the mutiny on the *Potemkin*. A naval rebellion indeed took place-but almost every other bit of the film is invented or exaggerated, including the memorable scene of a pram bouncing down those famous steps. The mutiny was a failure. One survivor ended up running a fish-and-chip shop in Dublin. It is that kind of detail, coupled with a fine feel for the sweep of history, that make this book a worthy tribute to one of Europe's greatest and least-known cities.

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New thriller

Hard to shake off

Feb 24th 2011 | from the print edition

A shrewd espionage thriller

Shake Off. By Mischa Hiller. *Telegram Books; 277 pages; pound7.99.* Buy from Amazon.co.uk



A BEDSIT in Tufnell Park, an unremarkable suburb of north London, seems an unlikely setting for an espionage thriller about the Israeli-Palestinian conflict. Until the hero, Michel, who is a survivor of the massacre at the Sabra and Shatila refugee camps, takes out a bundle of fake passports and foreign currency from a secret alcove in the bathroom and goes to work.

Mischa Hiller's debut, "Sabra Zoo", a chilling rites-of-passage novel set in Beirut in 1982 during the killings in the camps, was highly praised. "Shake Off" builds on that success. The book sweeps the reader straight into the deadly world of an operative, where everyday objects and events are weapons and battlefields in the undercover war. As every good thriller should try to do, "Shake Off" is peppered with expert tradecraft: how to hide money in a rolled-up newspaper, how wet paper is easier to flush away than dry.

But "Shake Off" is more than a straightforward spy thriller. Mr Hiller's book is both poignant and human. As Michel tries to cope with loss and grief, memories erupt like a volcano, such as his father pushing him over as the gunmen open fire-and then slowly expiring on top of him. Not surprisingly, Michel has become a junkie who cannot sleep unless he first swallows a handful of codeine tablets. Charged by his handler, Abu Leila, with finding a secret venue for talks between Israelis and Palestinians, Michel also reads Primo Levi, where he finds dark echoes of what happened to him in Lebanon.

"Shake Off" is written in the first person, and Mr Hiller, who grew up in Beirut, London and Dar es Salaam, has a unique and engaging voice. The book's narrow focus intensifies both the narrative drama and Michel's inner desolation. Mr Hiller's writing style is sparse but evocative; the hero's bare room and the loneliness of exile deftly drawn. Words are used sparingly and effectively; the Phalangists don't burst in that fateful night, they "interrupt" Michel's family's final dinner.

The menace builds steadily until a brutal assassination in Berlin, after which Michel, tracked by Mossad, goes on the run to the highlands of Scotland. Only Helen, his feisty neighbour, with whom he has formed a close bond, can offer some kind of salvation. Forced to use her as a kind of sanctuary, he endangers the woman he loves. Powerful and thought-provoking, this is a book that stays with the reader. Mr Hiller's "Shake Off" is hard to shake off.

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A Gaza memoir

Bitter road

Feb 24th 2011 | from the print edition

The life of a Palestinian doctor

I Shall Not Hate: A Gaza Doctor's Journey on the Road to Peace and Human Dignity. By Izzeldin Abuelaish. *Walker; 224 pages; $24. Bloomsbury; pound16.99.* Buy from Amazon.com, Amazon.co.uk

WHAT is said in this impressive book is less remarkable than who says it. Izzeldin Abuelaish calls on Israelis and Palestinians to show decency, respect and understanding towards each other and never to allow anger to spiral into hatred. Wise advice, delivered from a pulpit maybe? No, Dr Abuelaish speaks from cruel ground level. Born and brought up in the dirt-poor squalor of a Palestinian refugee camp, he built a medical career that was helped along by Israeli colleagues but tormented by Israeli officials. Then, two years ago, he saw three of his daughters literally blown to bits by an Israeli tank that had aimed its shells at their bedroom.

His grandfather was a prosperous farmer who evacuated the family to the safety of nearby Gaza during the 1948 violence. Like others, they thought the move would be temporary. But return was forbidden and their land went to Ariel Sharon, a former Israeli prime minister. Curiously, Mr Sharon played a more direct hand when they lost their home a second time. As Gaza's military commander, he ordered bulldozers to widen the alleys in the camps, demolishing the little house the family had built.

The eldest of nine, the author was expected to earn what he could from early childhood. But the UN ran schools and he held on to his books as tightly "as a mother cat would hold on to her newborn kittens". He won a scholarship to study medicine at Cairo University, then specialised in gynaecology, particularly infertility. An odd choice, perhaps, for someone from jam-packed Gaza, but high infertility, he explains, goes hand in hand with high fertility, and it is the woman who is routinely blamed: "the unproductive tree should be cut" is an ominous Arab expression.

Out of the many countries and hospitals where he worked, it was across the border in Israel that he found the greatest professional fulfilment. As he happily treated Israeli women and made friends with fellow doctors, he saw medicine as a bridge between the two hostile people. But the Israeli state did what it could to block him. Most Gazans cannot travel at all. Dr Abuelaish's Israeli employers provided permits but his daily journeys still meant excruciating delays, rebuffs and humiliation. He hung on to the distinction: don't blame the Israeli people for the actions of individual bullies.

In December 2008 Israel responded to Gaza's suicidally foolish lobbing of homemade rockets across the border with a ferocious three-week bombardment. Dr Abuelaish, his eight children and other family members hoped they would be safe huddling in the big house they had built on the outskirts of the refugee camp. But a tank targeted it and four girls were slaughtered: Bessan, who sweetly cared for her siblings after their mother died; clever Mayar, who meant to follow her father as a doctor; blonde Aya who wanted to be a journalist; and their beautiful cousin, Noor. Dr Abuelaish, frantic to get the wounded to a good hospital-the eye of another daughter, Shatha, was hanging on her cheek-telephoned an Israeli friend for help. Because the friend, Shlomi Eldar, a TV anchorman, was live on air at the time, Israelis heard the anguished appeal. The shock effect is believed to have helped to end the assault.

As he steadily refuses to allow his personal tragedy to shake his belief in tolerance, Dr Abuelaish, who now lives in Canada with his surviving children, has become well known. Anger is fine, he says, but we must all find the inner strength not to hate. He himself has done so quite magnificently.

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Hip-hop in Uganda

The dance in the night-time

Feb 24th 2011 | *KAMPALA* | from the print edition

The operatic intensity of streetdancing



Breakin' out of Africa

IN A dingy, garage-sized dance studio behind the national theatre in Kampala, Uganda's capital, a dance troupe called Tabu-Flo is hard at work. There is only a single mirror and the choreography is complicated. The pressure to get it right is intense: the group is to travel to London in April to perform at Sadler's Wells theatre.

One dancer swivels on his head. Another pops and locks. These small explosions of wrist, palm and foot are the universal bodyplay of breakdance. But there is more. Seamlessly, the dancers move from breakdance to something more lithe. In the

arching and shaking of their chests, the imitation of animals, and the expression of pride and belonging, there is the unmistakable influence of the dances some Ugandan teenage boys perform at their circumcision and passage into manhood.

There are seven men, from different backgrounds and parts of Uganda. They formed in 2007, while performing for the Breakdance Project, an initiative that seeks to help children in poorer Ugandan neighbourhoods by teaching them dance moves. The project is a reaction to the spectacular spread of hip-hop culture in the country. Uganda is behind Nigeria when it comes to bling, but hip-hop rivals gospel, reggae and Lingala (a kind of African rumba) on Kampala radio stations. And it is arguably more visual than any of them, with the material aspiration and celebratory virility of hip-hop videos now commonplace on television and mobile phones.

Uganda is a dancing nation. "Each of us has a dance we were born with and we mix them up," says Hakim Zziwa, one of the dancers. Children start with dance competitions in primary school and continue with their one-upmanship on the dance floor in nightclubs and weddings into their adulthood. "Everyone can dance here," says Abdul Muyingo, another of the dancers. "You don't study it. You are filled with it." Perhaps the best advertisement for Tabu-Flo is that it has achieved local celebrity. One of the group was named Ugandan dancer of the year. But the position of a dancer in a land where everyone thinks they can dance is a precarious one; it is a struggle to get paid.

It may be more appreciated abroad. After London Tabu-Flo hopes to compete in the world hip-hop dance championships, to be held in Las Vegas in July. The preparation for the journeys is being recorded in a feature-length documentary by an Irish-Ugandan film-maker, Emile Dineen, who helped set up the Breakdance Project. Much of Mr Dineen's film will centre on the piece Tabu-Flo is working on, called "Night Dancers". It was handpicked by Jonzi D, a British rapper who is the creative director of the "Breakin' Convention" streetdance festival at Sadler's Wells.

"Night Dancers" depicts a contemporary belief in Uganda in *abasezzi* or night dancers. These are humans who become zombies after dark. They are said to strip themselves naked and dance feverishly in the slums or at the edges of the villages, their mouths filled with fire. They feast on the flesh of the recently buried dead. In Tabu-Flo's interpretation, two night dancers are confronted by the community after they eat a corpse. A struggle ensues and the night dancers are vanquished. The almost operatic intensity of the story is balanced by the group's own belief in night dancers. They are proud of their work, but worry that success might bring it to the attention of the zombies.

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Correction: “The New North”

Feb 24th 2011 | from the print edition

In our review of Laurence Smith's book, "The New North" ("The de-icing age", February 15th), we stated that the author claimed that a quarter of the Earth lies at latitudes above 45^N. The correct figure is less than 15% and the mistake was ours, not Mr Smith's.

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Santi Santamaría

Feb 24th 2011 | from the print edition

Santi Santamaria, a fighter for traditional Catalan cooking, died on February 16th, aged 53



THE best restaurant in the world, according to many of those who passionately rate these things, sits on the Costa Brava at Roses, 160km north of Barcelona. There, at Ferran Adria's El Bulli (three Michelin stars), you will find mosaics of sea anemones, and parmesan-infused air; spherified olives, with their concentrated essence minutely encased in gelatin; a *tortilla espaÃ±ola* deconstructed into tiny layers of egg-white sabayon, onion puree and potato foam, served in a sherry glass; and a dessert called "Autumn", where sweet and spicy powders make up a forest floor that is strewn with chocolate leaves.

An hour's drive south, at a restaurant called Can Fabes (also three Michelin stars), Santi Santamaria knew just what he thought of such tinkerings. Mr Adria and his followers, he announced in 2007, were a gang of frauds. By footling round with centrifuges and liquid nitrogen they were reducing food to a set of mental hurdles, as though there weren't already enough traffic lights and zebra crossings in life. These were meals they would never dream of eating themselves, full of methyl cellulose and emulsifiers that might well poison their customers. No wonder Mr Adria was stylishly slim where Mr Santamaria, white chef's jacket stretched to bursting point as he rose monumentally from his chair to berate his rival in public, was not.

At his restaurant, he was quick to point out, the food was pure, unadulterated, and looked like what it was. Roast kid done so perfectly, lacquered and stuffed, with a simple *jus*, that it had stayed on the menu for years. Bean soup with black pudding and bacon, beignets oozing warm chocolate truffle across the plate. "Autumn" at Mr Santamaria's establishment meant the earth-smell of mushrooms fresh-picked in the woods, damp-feathered game pulled from the huntsman's pouch, and lentil stew so rich, so redolent of the season, that as the lid of the tureen was lifted Mr Santamaria's hands would start to rotate sedately, wafting the aroma upwards, and his eyes to close with sheer rapture.

He knew about science. He'd had his fill of it as a young man, trying to be a technical draughtsman and then a quantity surveyor, when all he had wanted to do was stay in his mother's kitchen cooking, and then eating, macaroni with *sofrito* and sausages, or her special filled pancakes. The day in 1981 when he put down the set square and put on the apron, having decided to turn that ancient, tumbledown family kitchen into a restaurant, was the happiest of his life-not forgetting the day of his marriage to his teenage sweetheart Ã€ngels, who tied on her apron beside him.

Science, he admitted, was good for some things: to keep fish stream-fresh, to clarify a consomme. But he was on the craftsman's side. An artist was what he had really wanted to be, and he had simply transferred his painterly feelings to stroking the rich glaze on a shank of lamb, or dashing his signature in a passion-fruit coulis. The menu changed with his moods as much as the season: red peppers because they had shone at the morning market, sardines for their feel in his plump fingers, the first wild asparagus simply because it was there, and had to be celebrated with his customers. His life was loudly dedicated to taste, real taste, and lingering pleasure for all the senses, not simply some brief, show-off spectacle achieved with stabilisers and steam.

As a young chef, self-taught, he had devoured cookery books of every kind: medieval, Japanese, Italian, all the French masters. *Nouvelle cuisine* especially impressed him. But he kept returning to the flavours and products of his beloved Catalonia, and even to the small, rocky stretch of it outside his kitchen door. His baby lamb came from his own Montseny mountains, and was flavoured with herbs that grew there. Fish came from Blanes, the first spring peas from Llavaneres, artichokes from El Prat de Llobregat. His enthusiastic immersion as a boy in Catalan culture-speaking, reading and writing

a language that was officially banished under Franco to the hearth and home, wandering in the rugged, piny Catalan landscape-reached its natural apogee in preserving, lovingly, what *Catalunya* tasted like. It was fitting that the last meal he made, before he died of a heart attack at his new restaurant in distant Singapore, was a *pa amb tomaquet*, fresh tomato pulp and olive oil pressed onto bread, the purest taste of home.

A table as a poem

By then a truce had been reached with Mr Adria, though it was fidgety. The slimmer man dismissed Mr Santamaria's barbs as total nonsense, and their originator as a staid old conservative. But Mr Santamaria did not greatly mind that, if it meant that he was honouring the best traditions of cooking and thereby contributing, as he saw it, to the beauty of life.

A table at Can Fabes-or any of his six other restaurants-was, in his words, "a poem". It stirred memories of his mother spreading out the special white cloth she used for feasts. In this calm, unhurried setting Mr Santamaria, using only fire, would perform the "magic" of turning raw food into meals. The result could be shrimp "that makes you lose your senses", or a fish and potato soup that would "put the moon on your plate". And nothing could taste better, surely, for all those gizmos, at the best restaurant in the world.
